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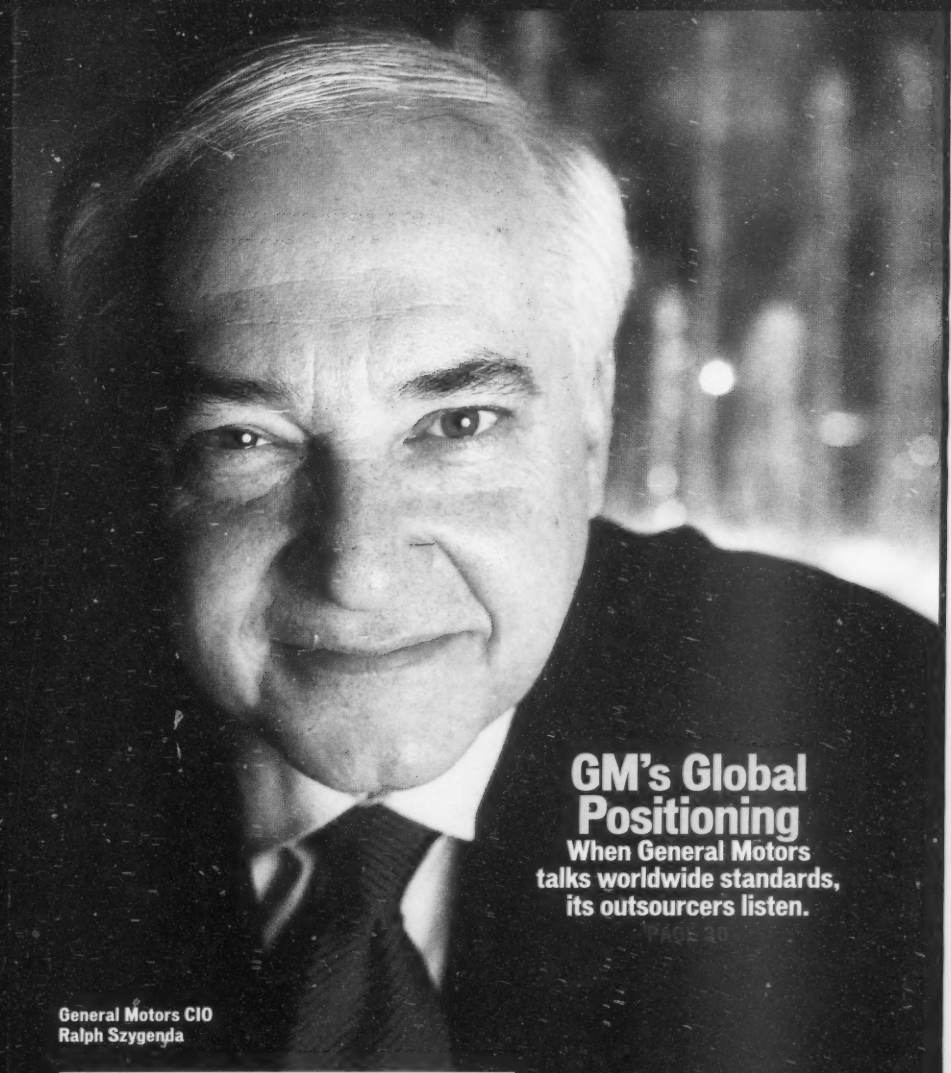

GM's Global Positioning

When General Motors talks worldwide standards, its outsourcers listen.

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General Motors CIO Ralph Szygenda

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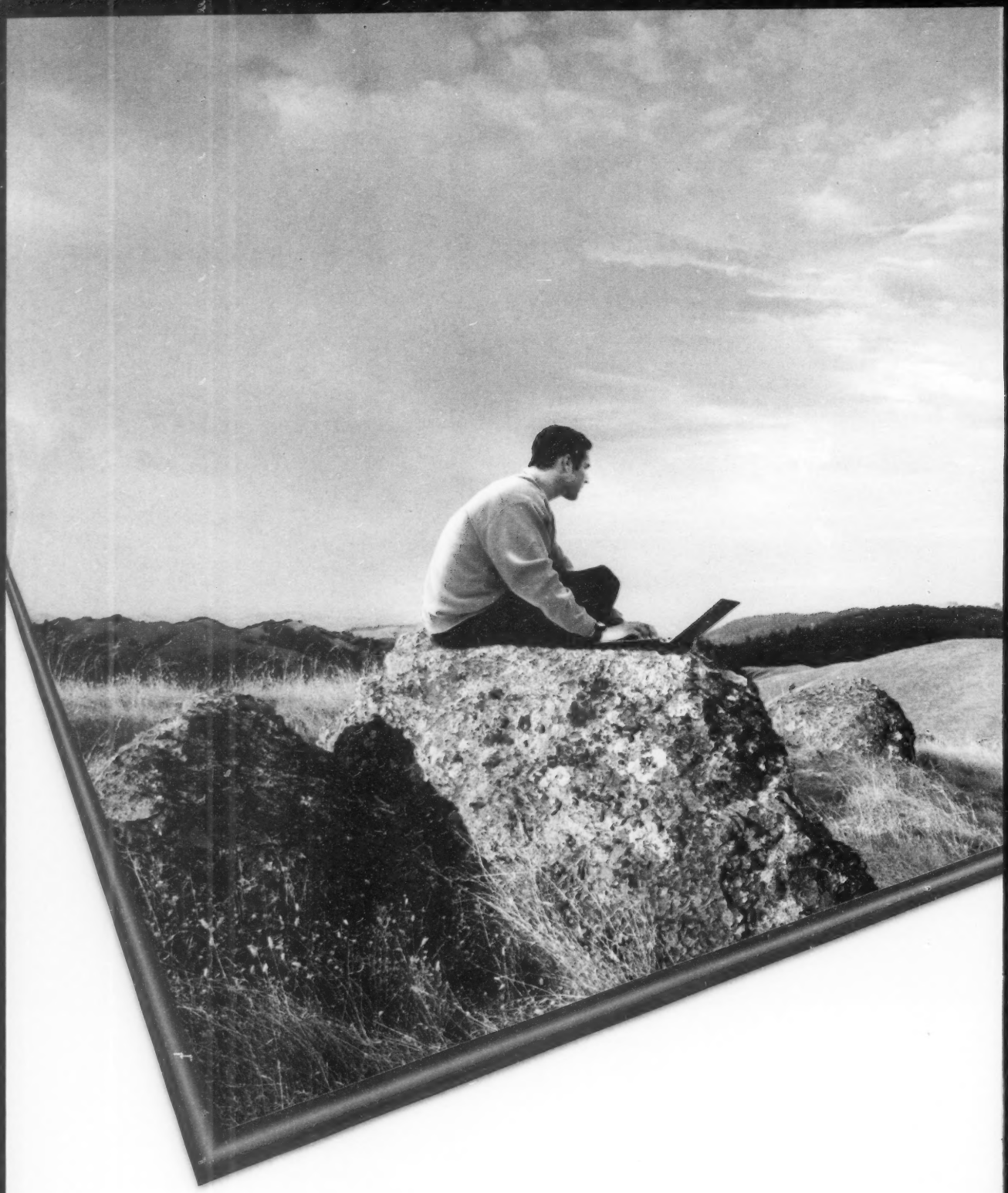

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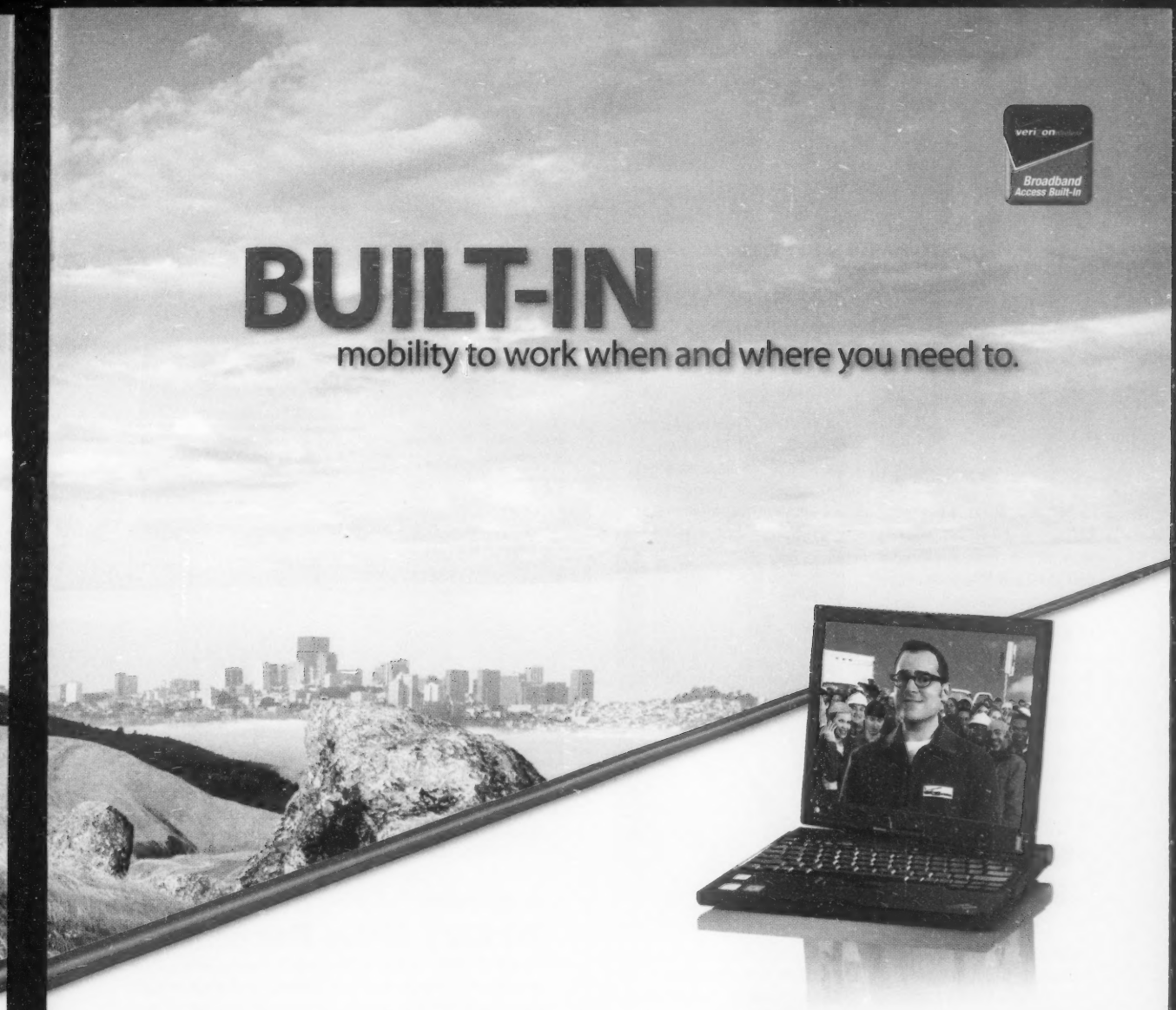

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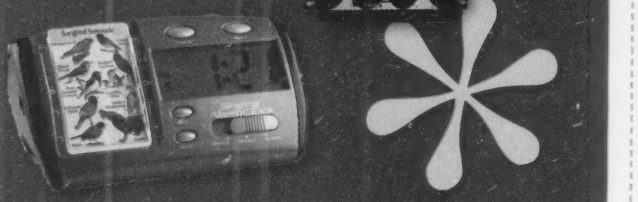

Inside the VA's Computer Meltdown: What Happened and Why

The agency's systems were recently down for a day, and it will take months of work to recover data for the medical records of thousands of veterans.
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Will Wi-Fi Hot Spots Survive WiMax and 3G?

Public Wi-Fi hot spots are a popular way to connect while on the go, but things will change significantly when mobile WiMax becomes available.
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Real Life: Earning the CISSP

After surviving the rigorous six-hour test and obtaining Certified Information Systems Security Professional accreditation, networking pro Greg Schaffer examines what it takes to pass – and how it might benefit your career.
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Opinion: Will Dell Bite The Hand That Feeds It?

Dell's acquisition of EqualLogic is likely to cause some friction between Dell and EMC, especially where EMC's entry-level Clariion storage systems are concerned.
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Computer Forensics In the Age of Compliance

Anton Chuvakin continues his series with a look at how PCI-DSS, FISMA and HIPAA regulations affect the computer forensics process.
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Blog Spotlight

Get Ready for Internet Brownouts

Not happy with a sometimes (or all-the-time) sluggish broadband connection? If Nemertes Research is to be believed, things are going to get a lot worse, leading to widespread Internet brownouts and less Internet innovation, blogs Preston Gralla.
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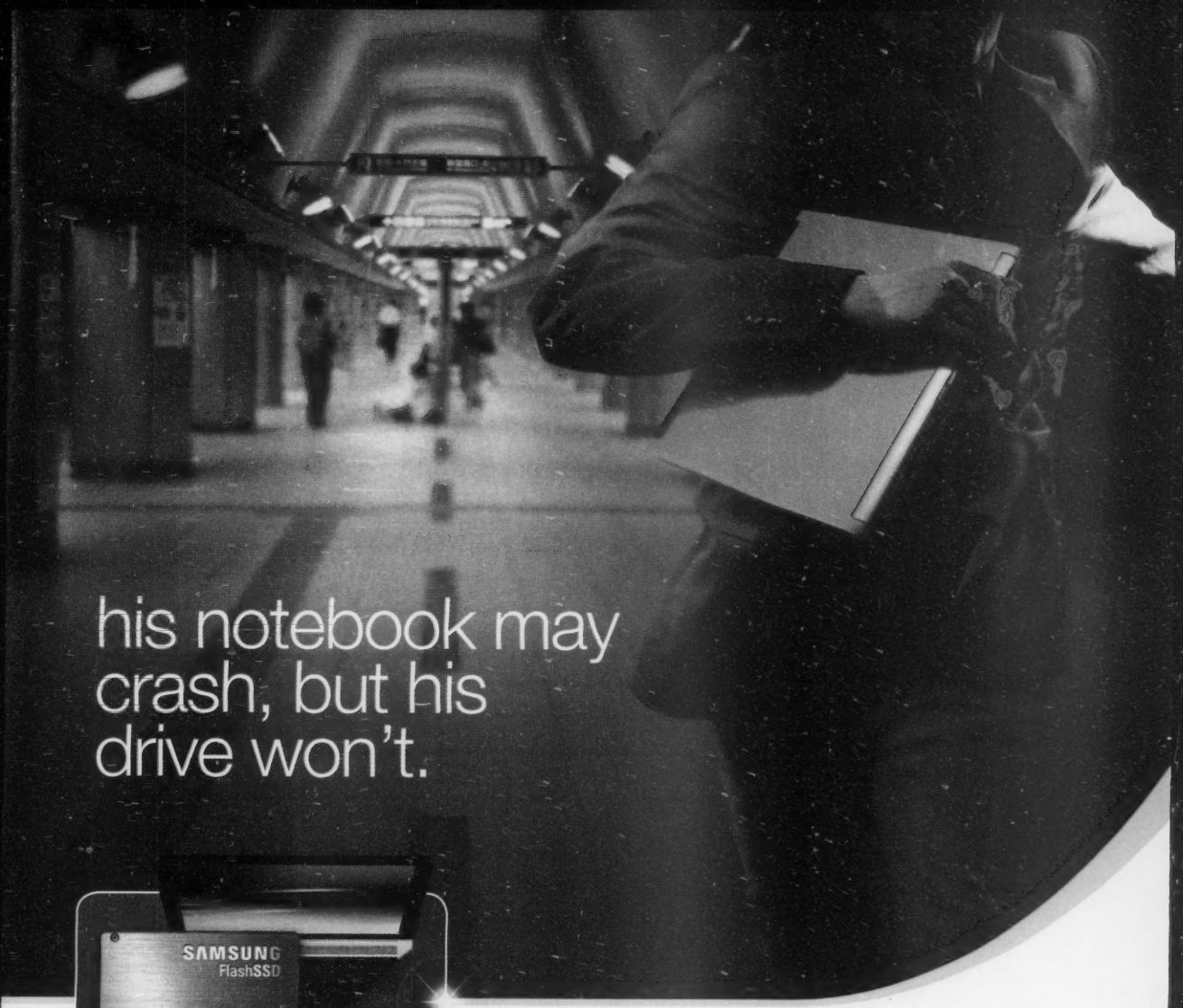

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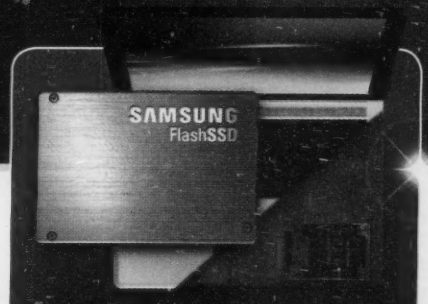

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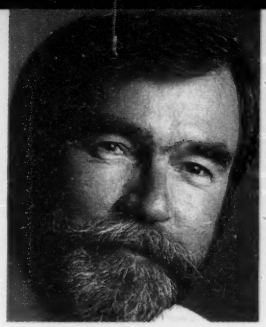
■ EDITOR'S NOTE

Mark Hall

Apple vs. IBM



IN LATE OCTOBER, a buddy from my *MacWeek* days e-mailed me with this half-joking dig: "Apple's worth more than IBM. The Mac wins!!"

My friend wasn't alone in his glee. Bloggers and Web sites devoted to all things Macintosh were quick to put a verbal boot to IBM's keister when Apple's market capitalization surpassed IBM's. At one point this month, the stock market pegged the maker of the ultratrendy iPod and iPhone at a higher valuation — $12 billion more — than IBM, which makes boring old mainframes.

To Mac fans, it was a vindication of Apple's approach to computing. Apple strives to make things simple for end users. IBM seems to savor IT complexity, always underscoring how hard technology is to use.

The Apple-IBM rivalry goes back to 1981, when Apple took out a quasi-mocking advertisement greeting the arrival of the IBM PC with bold text reading, "Welcome, IBM. Seriously." For a while, IBM tried to pitch its PC to Apple's traditional market of technology-conscious consumers with a Charlie Chaplinesque pitchman. In 1983, it came out with the PCjr, trying to entice average Joes to experience the joys of working with DOS. It turned out, though, that the real market for PCs back then was not the home, but the office. IBM quickly changed gears and flourished.

Apple wasn't blind to what was happening in the market. The year the PCjr appeared, Apple shifted its strategy to go after enterprise business users with its high-end and high-priced Lisa desktop computer. It did as well in corporations as the PCjr did among consumers, which is to say it totally bombed.

Since then, Apple has always had a modest revenue stream from the enterprise. Its main markets have been educators, small businesses, content creators and consumers. The enterprise has always been an afterthought for Apple execs, and it remains so to this day.

That's too bad. Apple has some excellent tools that would fit nicely into most data centers. Its Xsan and Xserve RAID products are considered solid. Its Xserve hardware and Leopard Server have received positive reviews on *Computerworld.com* and elsewhere. And the market share for the Macintosh is growing, making it increasingly attractive to independent software vendors, whose software ultimately makes a PC platform valuable to business users.

■ Finally, the Mac is a serious tool for IT to deploy. But a tool is not a strategy.

So, should CIOs forget the past and jump on the Apple bandwagon? Not just yet. That's because IBM's vision of computing is much closer to business reality than Apple's is. IT problems *are* complex and can't be completely solved by a visit to your local Apple Store. For every IT question, Apple has one simple answer: the Mac.

IBM, on the other hand, doesn't have a pat answer, because it knows each company's IT conundrums will be solved differently. Sometimes, it's with Unix in a server farm. Once in a while, it's z/OS on a mainframe. On occasion, i5/OS on a server does the trick. What's best for the end user? Tablet PC? Thin client? Maybe even a Mac? IBM can deploy all these technologies and more.

This is not to say that IT should go all Blue and ignore Apple. Quite the contrary. Apple has changed the Mac to be more enterprise-worthy, as with those "X" systems I mentioned. Its software conforms to more standards than before, so the Mac plays nicely in your data center. Finally, after two decades, the Mac is a serious tool for IT to deploy.

But a tool is not a strategy.

Apple's great success on Wall Street has little to do with its Mac market-share growth and nothing to do with its solid tools for enterprise computing. No, as we all know, Apple is today worth more than IBM because of the momentum behind the iPod and the iPhone. And it's the profits from those wonderful gadgets that have given Apple the excess cash to invest in those new tools for IT. But corporate computing remains an afterthought at Apple, whereas at IBM, it's practically the only thought. ■

Mark Hall *is a* Computerworld *editor at large. Contact him at mark_hall@computerworld.com.*

Don Tennant will return next week.

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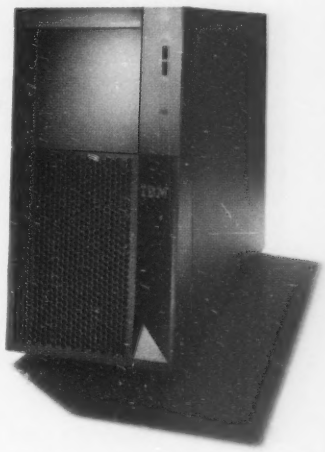

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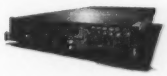

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The Debate Rages on Over 'Using Women'

Don Tennant really cratered with his Nov. 5 Editor's Note, "Using Women." If anything can be called "inappropriate" about the situation, it is the juxtaposition of such a physically challenging sport as boxing with such a mentally challenging field as IT. Sure, I get the metaphor of competition, but after that, what? Are we, who generally don't have to lift anything heavier than a server, PC or monitor, supposed to identify with people whose lives revolve around physical training and prowess?

Vanco did what it set out to do: It attracted a large number of people to its display at the least possible cost. Should it be faulted for the accuracy of its market targeting?

Tennant suggests there should have been more of a backlash. That there wasn't is a clear indicator that his objections are out of step with the realities of our industry.

Conan Cocallas, *project manager, Oakhurst, Calif.*

I was disappointed in your readers' responses to the "Using Women" editorial ["Getting Old, Indeed," Nov. 12]. Tennant's disgust with these practices is right on. Moreover, the Western assumption that sex is the best way to sell a product is deeply flawed. Last year, I bought a friend a domain name through GoDaddy. He is a very modest man from the Middle East with zero appreciation for overt sexual behavior (he doesn't expect women to wear a veil, but clothes are appreciated). He was excited to receive the gift but embarrassed to see GoDaddy's commercials featuring barely clad women cavorting in an office setting. Apparently, it is not enough to be a leading service provider; one also has to be a pimp. No thanks.

A. Curtis, *Park Ridge, Ill.*

Tennant is right. I'm male and heterosexual, and as far as I'm concerned, any man who doesn't notice the rampant sexism in this industry needs to have his brain replaced. IT workers must be the raunchiest, dirtiest bunch of overgrown adolescents in the nation. Maybe it's the same in every industry, but I suspect it's not. The whole IT culture of gender disparity and social inadequacy infects everything, and it's predictable that your readers would flip out when you seem to threaten their God-given right to ogle women at conferences.

A woman in a technical position in the IT industry needs more than talent and ability; she needs skin like steel. If I had witnessed the ring girls you described, I doubt I would have looked away. But that natural reaction doesn't deactivate a man's brain. Frankly, I think most people who wrote angry e-mails to you know very well that all of this is true, but they can't stand the idea of a girl in their treehouse. It really is embarrassing — it's embarrassing to me as a man, and it's embarrassing to me as a worker in this industry.

Mark Golden, *Williamsville, N.Y.*

Setting aside for a moment that I agree with Tennant's assessment of using scantily clad models to attract a male audience at a trade show, I found something else disturbing in the replies he highlighted. That is the use of ad hominem remarks in lieu of reasoned argument. It seems to be an inherent drawback to the blog culture that we don't treat our correspondents as worthy of respect, going only for the cheap shot. While Tennant may be "weak-minded" or "foolish," nothing in his editorial led me to believe that. Even if I did believe it, I would not say it to his face, and so I would not say it in an e-mail or posting. I realize that the personal attack is an occupational hazard for Tennant. For what it's worth, I find its use to be a barrier to discourse, and frankly, it's getting very old.

Joel Rosenberg, *information systems manager, Bi-Mart Corp., Eugene, Ore., jrosen@bimart.com*

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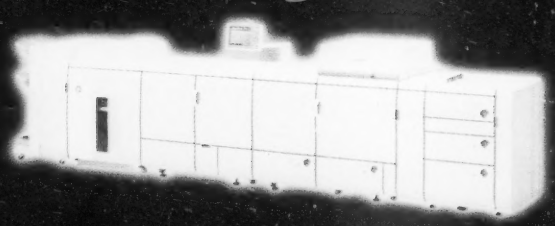

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News Digest

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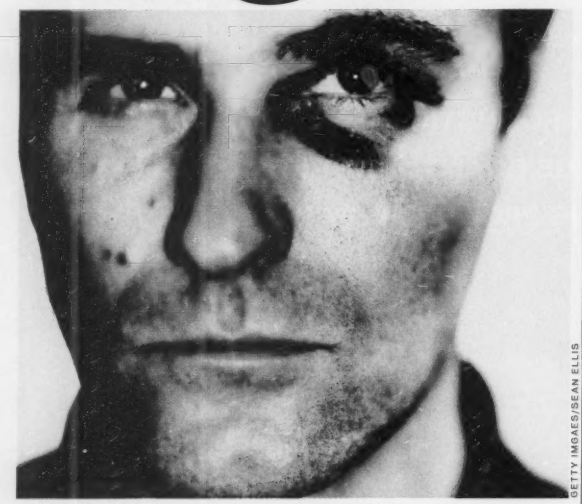
THE WEEK AHEAD

TUESDAY: Gartner's Data Center Conference 2007 gets under way in Las Vegas. And the Gilbane Conference on Content Technologies opens in Boston.

THURSDAY: Dell plans to report its third-quarter results.

THURSDAY: The Association for Federal Information Resources Management holds a lunch program in Washington. A panel of speakers from the U.S. Department of Defense will discuss its network-centric IT strategy.



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SOFTWARE

TomorrowNow Shake-up Aims to Fix SAP Black Eye

LAST WEEK'S departure of top executives from SAP AG's TomorrowNow Inc. unit is likely an attempt by the parent firm to repair a public image tarnished by allegations that TomorrowNow workers illegally downloaded data from Oracle Corp.'s Web site, analysts said.

In a statement last week, SAP confirmed the departure of TomorrowNow CEO Andrew Nelson and other top executives. A spokesman declined to identify the other departing employees.

SAP also said that it is "considering several options" for TomorrowNow, including the possibility of selling it.

Mark White, executive chairman of TomorrowNow, said that the unit plans to explain the management shake-up and its upcoming strategy to customers over the next few days. Bryan, Texas-based TomorrowNow provides support and maintenance for Oracle-owned PeopleSoft, Siebel and J.D. Edwards software.

Marc Songini, an analyst at Nucleus Research Inc. in Wellesley, Mass., said SAP shook up its subsidiary because it "doesn't like to look bad in public."

"Whether or not there's any real culpability for [SAP], they don't want the black eye," he said. "You had to figure somebody's head was going to roll."

Oracle filed a lawsuit against SAP in March, charging that some TomorrowNow workers pretended to be Oracle customers and downloaded "thousands of proprietary, copyrighted software products and other confidential materials" from the support Web site for PeopleSoft and J.D. Edwards users.

In July, SAP acknowledged that some workers made "inappropriate" downloads of fixes and support documents and said it was open to settling with Oracle.

Ray Wang, an analyst at Cambridge, Mass.-based Forrester Research Inc., said last week's moves should reassure customers that such activities won't occur again and are "just another part of the process of building credibility and accountability in that organization."

Wang did note that Rimini Street Inc., a Las Vegas-based software support firm created in 2005 by TomorrowNow co-founder Seth Ravin, could be a viable alternative for existing TomorrowNow customers if SAP sells the subsidiary. He also speculated that Rimini Street could be a potential buyer of the firm.

— Brian Fonseca

SECURITY

Déjà Vu: Another PC Theft at VA

The U.S. Department of Veterans Affairs is investigating yet another potential data breach – this one stemming from the theft of three PCs containing the Social Security numbers and other personal data of as many as 12,000 medical patients.

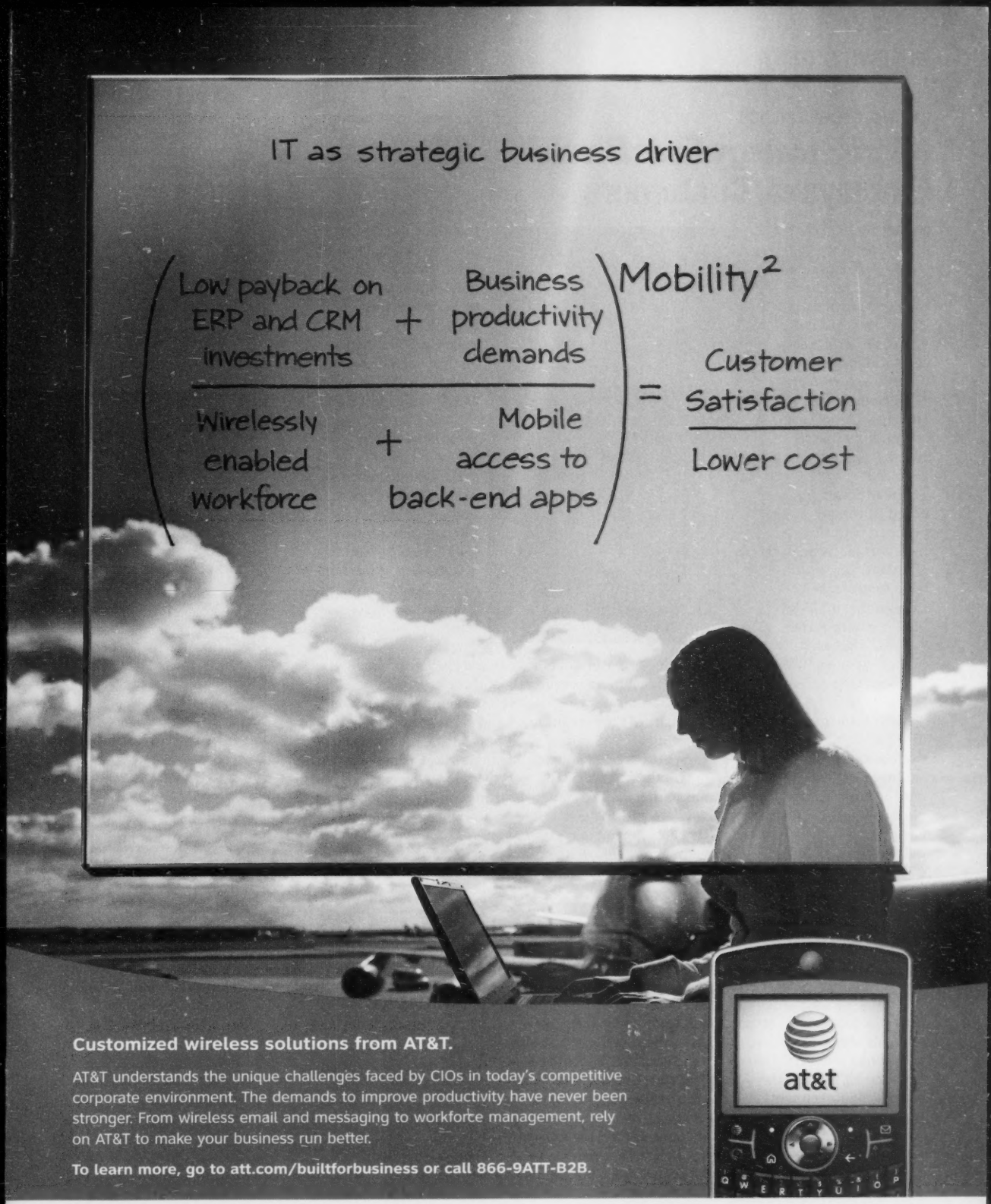
Rep. Steve Buyer (R-Ind.) disclosed that two desktop systems and one laptop had been stolen from a VA medical center in Indianapolis – ironically enough, on Veterans Day. VA officials

> "It is inexcusable that the VA repeatedly fails to comply with its own policy to safeguard veterans' personal information."
>
> **REP. STEVE BUYER**
> (R-IND.)

didn't return calls seeking information about the incident.

Buyer, the former chairman of the House Committee on Veterans' Affairs, said in a statement that the VA notified his office of the theft on Nov. 15. He added that he would "find out why VA policies were not followed and take whatever steps are needed" to ensure that the agency's data is better secured.

– JAIKUMAR VIJAYAN



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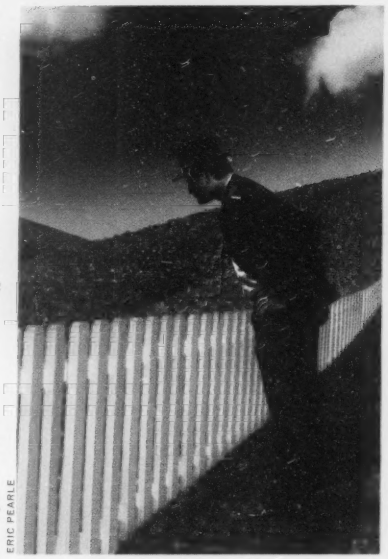
BUSINESS INTELLIGENCE

MicroStrategy Eyes Rivals' Employees, Customers

THE FALLOUT from the consolidation of the business intelligence industry took a new turn last week as MicroStrategy Inc. disclosed plans to aggressively recruit employees and customers of two competitors that have recently agreed to be acquired.


ERIC PEARLE

The McLean, Va.-based BI vendor outlined plans for the effort just a week after IBM agreed to buy Ottawa-based Cognos Inc. for $5 billion. A month earlier, SAP AG disclosed plans to acquire BI vendor Business Objects SA for $6.7 billion.

MicroStrategy aims to hire Business Objects and Cognos sales, consulting, engineering, legal, marketing and administrative employees "who feel threatened by the uncertainty in this space," said Vince Gabriele, vice president of worldwide human resources at MicroStrategy.

As part of the recruiting program, MicroStrategy plans to host open houses for workers in 17 U.S. and international offices on Nov. 29 and 30. A task force has been created to receive résumés and follow up on all leads within 48 hours, the company said.

In a Nov. 13 memo obtained by *Computerworld*, MicroStrategy CEO Michael Saylor told employees that the company also plans to court customers of Business Objects and Cognos who may be unhappy with the acquisitions.

David O'Connell, an analyst at Nucleus Research Inc. in Wellesley, Mass., called MicroStrategy's recruiting program a "savvy, aggressive move."

He said that even if MicroStrategy doesn't end up with new employees, the campaign may "be successful in sowing fear, uncertainty and doubt" among Cognos and Business Objects customers, who might be wondering about the fate of employees of those companies.

O'Connell added that the effort to court Cognos and Business Objects customers is sensible because "people who have deployed software always get nervous when someone acquires their [vendors]."

— *Heather Havenstein*

Short Takes

California Secretary of State Debra Bowen filed a lawsuit charging that Election Systems & Software Inc. sold 972 ballot-marking devices in the state last year without completing recertification requirements. It is seeking nearly $15 million in reimbursements and penalties.

U.K. Chancellor of the Exchequer Alistair Darling disclosed that a CD containing personal information on 15,000 participants in the national insurance plan was "lost in transit" by a courier used by the U.K.'s tax agency, HM Revenue & Customs.

Hewlett-Packard Co. credited sharp boosts in its OpenView and Mercury software businesses as key reasons for strong sales and profits in its second fiscal quarter, which ended Oct. 31. HP reported a profit of $2.3 billion on sales of $23.8 billion.

Advanced Micro Devices Inc. has launched Spider, which combines the chip maker's new Phenom quad-core processors, graphics cards and chip sets in one platform.

SECURITY

Fed Agencies Slow to Meet Mandate on Smart ID Cards

Most U.S. government agencies are continuing to move slowly in meeting a presidential directive requiring them to issue smart identification cards to all employees and contractors.

By Oct. 27, federal agencies were supposed to have issued so-called Personal Identity Verification cards to workers with 15 years of service or less. The PIV cards, which will support biometric authentication, will be used to control access to buildings and computer networks.

Several agencies didn't respond to requests for status updates. But information posted on IDmanagement.gov, a Web site set up by the U.S. General Services Administration, shows that many agencies had barely begun issuing the cards as the October deadline approached.

> **This is a classic example of politically established deadlines that are not based on any reality at all.**
>
> CONSULTANT AND FORMER CHIEF OF INFORMATION POLICY, WHITE HOUSE OFFICE OF MANAGEMENT AND BUDGET

For example, as of Oct. 19, the Social Security Administration had issued cards to just 300 of its 65,000 employees and 429 of its 20,000 contractors.

Hord Tipton, former CIO at the Department of the Interior, said the PIV rollouts require a lot of cooperation between IT and other groups. "It's one of those situations where the technology itself is not complicated," he explained. "But it does comprise many different pieces that have to be carefully integrated."

– JAIKUMAR VIJAYAN

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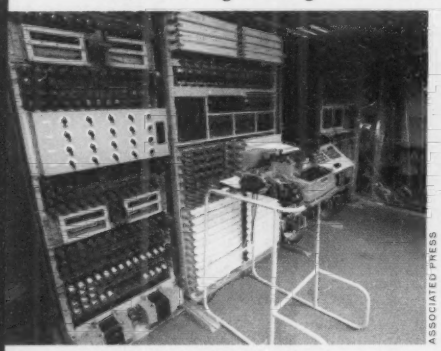
HARDWARE

PC Cracks Code Before 'Colossus' Replica Can

AN AMATEUR cryptographer in Germany used a PC and homegrown software to thrash a replica of the Colossus system in a code-cracking challenge that emulated the British government's use of the pioneering digital computer during World War II.



ASSOCIATED PRESS

The recently completed Colossus system took 14 years to build.

The U.K.'s National Museum of Computing held the contest to mark the end of a 14-year effort to build a new Colossus system based on the original design. The museum is located at Bletchley Park, the estate near London where code-breakers worked to decipher German radio traffic during the war.

On Nov. 15, a group at another computer museum, in Paderborn, Germany, encrypted and transmitted a series of test messages using one of the Lorenz ciphering machines that the German military relied on.

Before the vacuum tubes of the Colossus could be put to work, Joachim Schueth, a resident of Bonn, had submitted the deciphered test messages to Bletchley Park.

Schueth said on his Web site that he had written software to process the radio signals and identify the starting positions of the 12 enciphering wheels on the Lorenz machine. He said it took his PC — a notebook with a 1.4-GHz processor and the NetBSD operating system — 46 seconds to determine the rotors' settings.

Colossus was delayed by radio reception problems and a blown tube. But officials said it did decipher the coded messages, taking three hours and 35 minutes of processing time.

— *Gregg Keizer*

BETWEEN THE LINES *By John Klossner*

BENCHMARKS LAST WEEK

Ecma International posted 662 initial responses to the 3,522 comments submitted by national standards bodies about the group's proposal to make Microsoft Corp.'s Office Open XML file format an ISO standard.

Mozilla Corp. issued the first Firefox 3.0 beta-test release. But it recommended that only developers and testers download the code.

ONE YEAR AGO: Microsoft CEO Steve Ballmer's claim that Linux infringes on the company's intellectual property drew objections from users as well as new business partner Novell Inc.

Global Dispatches

Arabian Firm Buys 8% Stake in AMD

ABU DHABI, UNITED ARAB EMIRATES – Mubadala Development Co. announced this month that it has paid $622 million (U.S.) to acquire an 8.1% stake in Advanced Micro Devices Inc.

The funding from the investment firm, based here, will be used by Sunnyvale, Calif.-based AMD for research and development and to support its manufacturing operations.

Mubadala is owned by the Abu Dhabi government, but the deal is not subject to review by the Committee on Foreign Investments in the U.S. because Mubadala did not buy a controlling stake in AMD, according to the chip maker.

The investment does not include a seat on the AMD board of directors, the company said.

Jeremy Kirk and Marc Ferranti, *IDG News Service*

Mailes to Resign As S. Australia CIO

ADELAIDE, AUSTRALIA – Grantley Mailes last week disclosed that he plans to resign as CIO of the government of South Australia in January to take a new, undisclosed post. A replacement has not yet been named.

Mailes said he is leaving the government's Adelaide-based IT operation on good terms as he nears the end of a three-year contract.

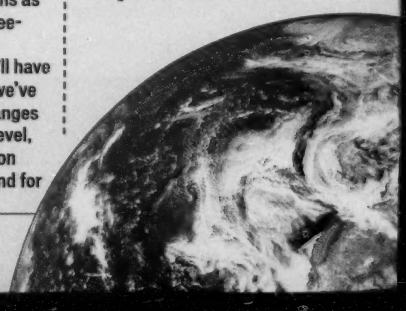
"After 32 months, we'll have gotten to a point where we've made some fairly big changes here, and at a strategic level, we probably need a person with different skills around for long-term implementation, and that just isn't me," Mailes said.

Andrew Hendry, *Computerworld Australia*

BRIEFLY NOTED

The Linde Group, a Wiesbaden, Germany-based producer of industrial and medical gases, has awarded a three-year, $15.2 million (U.S.) WAN services contract to Orange Business Services. The Amsterdam-based network services provider will create a customized system to connect 350 locations across the Asia-Pacific region and Europe.

Sandra Rossi, *Computerworld Australia*



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	Compression	Days/Weeks into Mins/Hrs
	Transmission	Query 95% endpoints < 15 min
	Acceleration	One-and-only BigFix agent
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Footprint	Viewing Radius	Single-console view of Universe
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	Safety	Eliminate attacks, malware, & rogue devices
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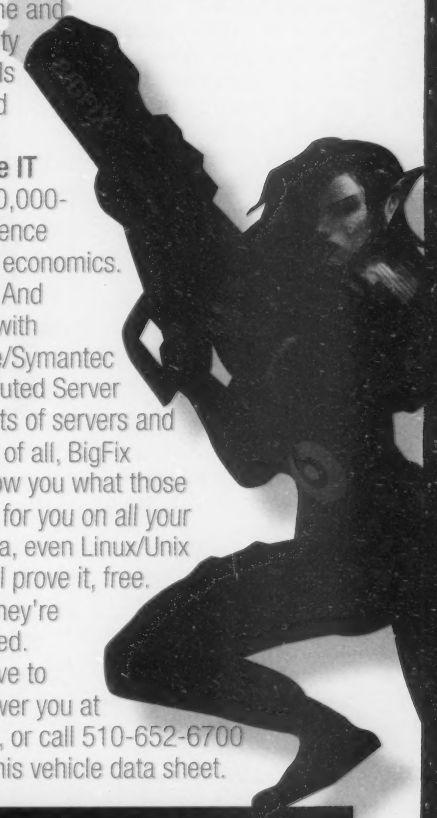

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TRBA

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Users Tap RSS Tools To Ease Info Overload

Companies hope to boost productivity by reducing the flow of internal e-mails. But the technology may take some getting used to.

By Juan Carlos Perez

LIKE OTHER employers that are installing RSS tools for their workers, Union Bank of California NA hopes the technology can help tame an internal communications overload.

About 80 departments and groups within the San Francisco-based bank are hitting employees with a steady stream of mass e-mails and voice mails as well as intranet postings, said James Penn, Union Bank's vice president of interactive marketing and communications.

And the deluge of often-irrelevant information has been taking its toll on workforce productivity, Penn said. For example, some salespeople have fallen behind in learning about the bank's latest offers and promotions, and that is affecting their ability to pitch the deals to customers, according to Penn. "We definitely needed to do something," he said.

Union Bank, a subsidiary of UnionBanCal Corp., has 248 branch offices in California, Oregon and Washington. It is now in the pilot phase of deploying an enterprise RSS system from KnowNow Inc. and expects to eventually roll out the technology to all of its 10,000 or so employees.

As part of the project, Union Bank's IT staff is creating targeted RSS feeds, so that workers will receive fewer but more-relevant messages, Penn said.

Other companies are also turning to RSS technology to try to help workers keep up with an ever-increasing amount of information. Users and analysts say that in particular, RSS servers and readers can provide a more precise and efficient delivery mechanism than e-mail does.

"The first problem we see addressed regularly with enterprise RSS systems is e-mail overload," said Oliver Young, an analyst at Forrester Research Inc.

An enterprise RSS system can be ideal for delivering the type of information that employees need to know but don't necessarily have to act on right away, Young said. He added that e-mails containing such information — a corporate benefits update or an internal newsletter, for example — often end up being deleted or ignored.

A company with an RSS system, on the other hand, could post the information on its intranet and send out alerts with built-in links.

Vendors such as KnowNow, Attensa Inc. and NewsGator Technologies Inc. have developed enterprise RSS software that can be integrated with corporate directories and security tools, giving IT departments control over the technology.

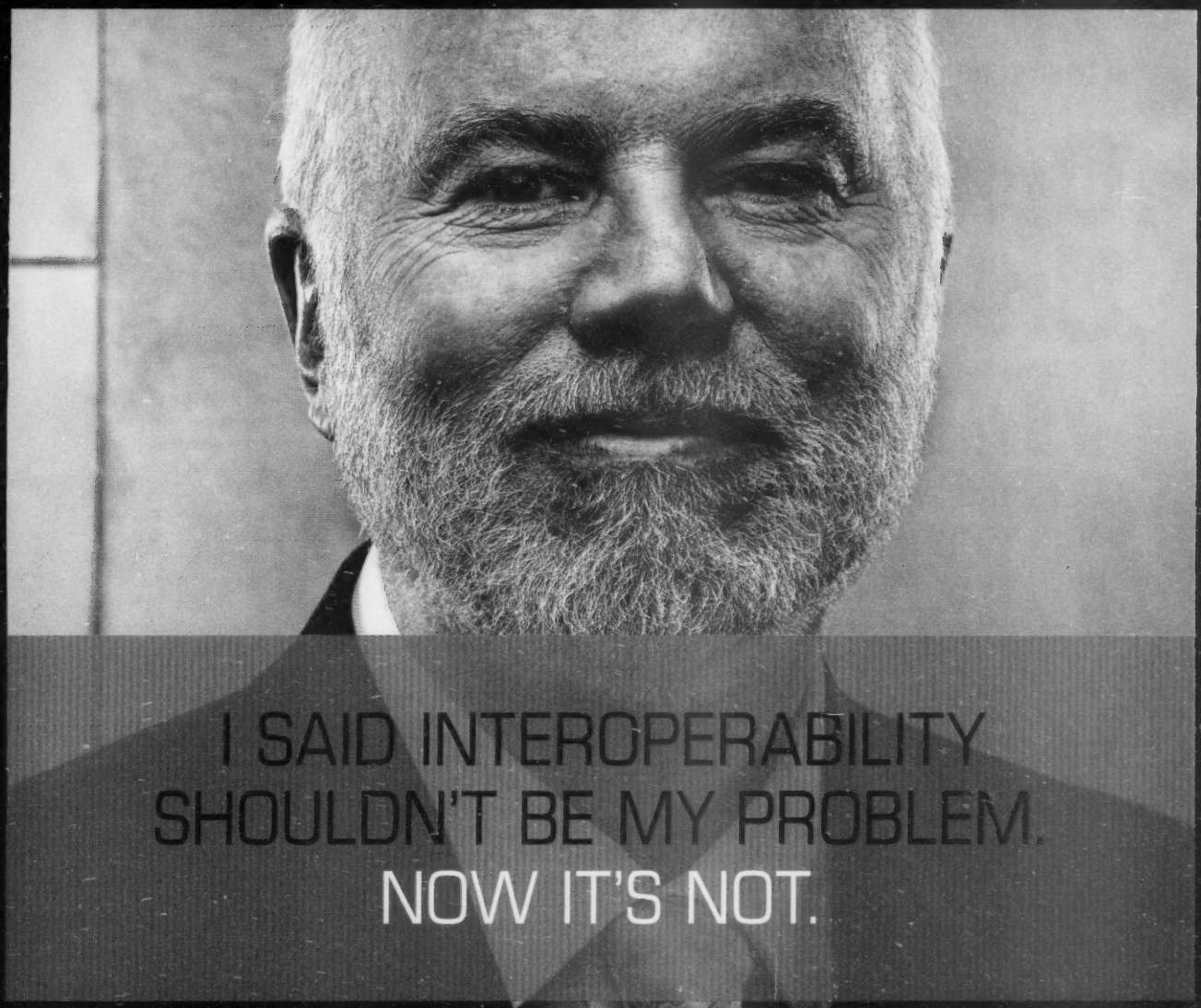
In addition, Microsoft Corp. and IBM's Lotus Software division have started to add RSS capabilities to their messaging and collaboration products.

At the division of the U.K. National Health Service (NHS) that provides medical services to residents of the Orkney Islands in Scotland, the IT department has significantly reduced the volume of e-mails by installing a NewsGator RSS system, said David Rendall, a computer programmer who is involved in the project.

But Rendall added that he has had to hold frequent training sessions to promote the use of the RSS system by the 600 or so end users at NHS Orkney. "The biggest challenge is helping people make the switch" from relying on e-mail, he said.

User indifference and ignorance, along with the familiarity of e-mail, are common barriers to RSS adoption in workplaces, according to Young. He recommends starting deployments within specific workgroups, with the stated goal of fixing known communication issues. ■

Perez *writes for the IDG News Service.*



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Oracle Virtual Server Unlikely to Blunt VMware

Users and analysts say widespread sales are unlikely outside of Oracle's installed base.

By Brian Fonseca and Eric Lai

SAN FRANCISCO

VMWARE INC.'S stranglehold on the virtual server business will likely limit Oracle Corp.'s new virtual machine technology to its current customer base. That was the conclusion of some attendees at the Oracle OpenWorld user conference here, where Oracle VM was unveiled earlier this month.

"The idea [that] people will gravitate to Oracle VM for virtualization for non-Oracle applications [is interesting, but] I don't think they will," said Galen Shreck, an analyst at Forrester Research Inc.

Shreck predicted that non-Oracle sites will continue to turn to established virtualization technology from companies such as VMware, Microsoft Corp. or Citrix Systems Inc.

Oracle, he said, lacks the systems management capabilities and independent software vendor partner relationships needed to create a virtualization platform for the masses. "I don't think Oracle can keep up" with the virtualization capabilities of market leader VMware, or even Microsoft and Citrix, Shreck added.

Oracle's decision not to support its own software running on the virtualization servers of other vendors may give it an advantage in its installed base, users noted.

That decision already has officials at Burlington Coat Factory Warehouse Co. looking to use Oracle VM when the retailer begins work on virtualizing its Oracle database and middleware, said Chief Technology Officer Michael Prince. Considering the Burlington, N.J.-based company's significant Oracle investment, any loss of support "would be a detriment to us running VMware," Prince said.

He noted that Burlington Coat Factory is also evaluating whether to replace its SUSE Linux software with Oracle's Unbreakable Linux implementation, which would give the company another reason to use Oracle VM.

Oracle VM is built on Xen hypervisor open-source code and is designed to support and centrally manage Oracle and non-Oracle applications within virtualized environments, company President Charles Phillips said at the conference.

Oracle said that several partners, including Advanced Micro Devices Inc., Intel Corp., Dell Inc., Hewlett-Packard Co. and Network Appliance Inc., have agreed to ensure that their products are certified to run on Oracle VM.

Jeff Valine, director of IT applications and project management at Glendale, Calif.-based International House of Pancakes Inc. (IHOP), a user of Oracle

Sun Jumps Into Virtualization Fray

SUN MICROSYSTEMS INC. unveiled its own virtualization software, xVM Server, at the Oracle OpenWorld user conference this month.

Like the Oracle VM virtualization software also unveiled at the show, xVM Server is based on the open-source Xen hypervisor project. Sun President and CEO Jonathan Schwartz told an OpenWorld audience that the company is committed to spending $2 billion on further xVM development.

Sun xVM Ops Center, a physical and virtual resource management stack, will be available for download next month, Schwartz said. Officials at Sun had previously said a second version of xVM Ops Center will ship in mid-2008.

Both versions will run on Linux- and Solaris-based systems across x64/x86 and Sparc systems. Later versions will support Windows, Sun said.

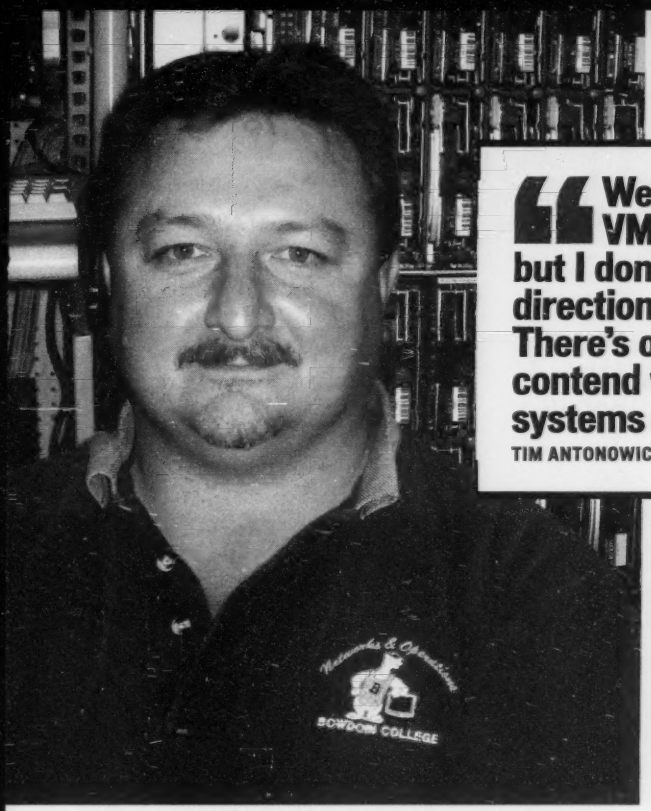
James Staten, an analyst at Forrester Research, said Sun's announcement is part of a drive by large vendors to build virtualization offerings on top of the Xen project.

"There hasn't really been a leader emerging around Xen yet," he said.

"What's unique about Sun is that they're marrying it to Solaris," Staten said. That could be "a huge advantage" for Sun as the industry increasingly moves to adopt multicore hardware, he added.

Sun said a several companies have agreed to support its virtualization offering, including AMD, Intel, MySQL AB, Symantec Corp., Quest Software Inc. and Red Hat Inc.

– BRIAN FONSECA, WITH CHRIS KANARACUS OF THE IDG NEWS SERVICE



> **"We're already established with VMware. We may look at [Oracle VM], but I don't consider us moving in that direction. It doesn't make any sense. There's only so many resources we can contend with as far as different operating systems and virtualization platforms.**
>
> **TIM ANTONOWICZ,** SYSTEMS ADMINISTRATOR, BOWDOIN COLLEGE

products since 2004, plans to evaluate Oracle VM.

The company uses virtualization software from VMware but would replace it with Oracle VM if the technology works better with its Oracle applications and database software, he said.

"Oracle VM is very interesting to us," he said. "Although we are quite happy with VMware, we still need to do the right thing for our business."

IHOP's willingness to evaluate Oracle VM corresponds to the restaurant chain's strategy of cutting IT costs by reducing its number of suppliers, Valine said. "We don't believe best of breed is the way to go anymore," he contended.

IHOP runs Oracle's Unbreakable Linux operating system, along with the software vendor's E-Business Suite and Property Manager applications and database management system.

Meanwhile, he noted that Applebee's International Inc., which IHOP is in the process of acquiring, runs Oracle's PeopleSoft applications. "That makes our Oracle footprint even bigger," he said.

On the other hand, Bowdoin College in Brunswick, Maine, has no plans to evaluate Oracle VM, even though it runs the vendor's database software on virtualized Windows and Linux systems.

"We're already established with VMware," said systems administrator Tim Antonowicz. "We may look at [Oracle VM], but I don't consider us moving in that direction. It doesn't make any sense. There's only so many resources we can contend with as far as different operating systems and virtualization platforms."

Antonowicz suggested that smaller organizations evaluating virtualization technology may benefit from Oracle VM. However, the technology will be hard-pressed to compete with what he called "the established" virtualized architectures, like those of VMware, Microsoft and others.

Bowdoin College's IT operation runs about 150 servers, including 100 that are virtualized with 11 VMware ESX servers, Antonowicz said. The school has been using the VMware software since 2004.

Ed Screven, Oracle's chief corporate development architect, asserted at the conference that Oracle chose not to support third-party virtualization servers to ensure that its support operations remain strong.

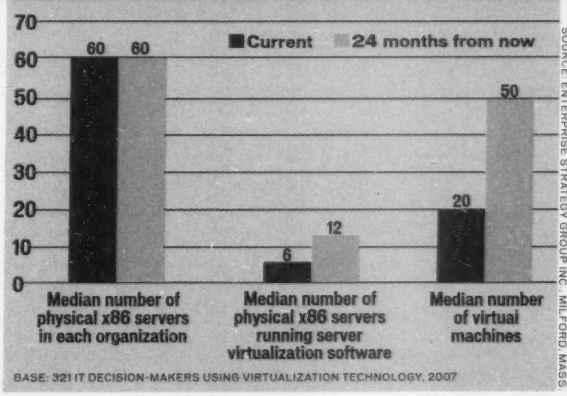
"The very hardest bugs for us to address are those that span the operating system and the virtualization layer," he said. "To provide the best performance and quality of service, we didn't think we could support all of the third-party virtualization solutions."

But during the same OpenWorld conference, Oracle CEO Larry Ellison told financial analysts that Oracle would "essentially" continue to support customers running VMware.

That's why Karl Ehr, IT operations manager for Golden Gate University in San Francisco, isn't worried.

This "is nothing more than a 'good cop, bad cop' ploy," he said. The school plans to move some of its Oracle applications to VMware within half a year. Oracle pulling support, he said, "is not going to happen." ■

Projected Virtualization Growth



BASE: 321 IT DECISION-MAKERS USING VIRTUALIZATION TECHNOLOGY, 2007

SOURCE: ENTERPRISE STRATEGY GROUP INC., MILFORD, MASS.

On the Mark

HOT TRENDS ■ NEW PRODUCT NEWS ■ INDUSTRY BUZZ BY MARK HALL

MATTHEW FAULKNER

Tread Carefully in SOA Design

MARTY MOSELEY worries that you'll make a mistake in your service-oriented architecture development, one that puts data quality at risk. The chief technology officer at Initiate Systems Inc. in Chicago says SOA designers often retain elements of existing programs, such as Oracle tables. If so, you're using SOA "just to schlep data around" in existing formats (perhaps perpetuating bad data) and making it harder to update information. Some try to get around this problem by creating a big, central master data service. Moseley shudders at this approach because it cripples real-time performance, hampers scalability and risks putting bad data in one place for all to share. "It's a major fault in people's thinking" about SOA development, he claims. According to Moseley, by deploying multiple master data services (such as those Initiate provides) for each SOA service, you improve performance and scalability while boosting data quality. And it's on data quality, he says, that SOA apps will ultimately be judged.

$14B
SOA-driven software revenue in 2011, predicts IDC.

Iona to BEA: Sell. Please.

Dublin-based Iona Technologies PLC is one of the pioneers of middleware. You'll find Iona's Orbix middleware in mission-critical systems throughout the world. But it's a fairly mature technology whose go-go days are behind it. Still, Iona's relatively wet-behind-the-ears enterprise service bus, Artix, is gaining ground rapidly among SOA buffs; plus, the company is leading development for Fuse, an open-source ESB. So it's not surprising that Iona CEO Peter Zotto is taking a keen interest in the boardroom machinations between BEA Systems Inc. and Oracle Corp. His conclusion: "It's only a matter of price." He says the deal would be positive for BEA shareholders, who'd get a premium on the current stock price. And it would be good for Oracle, which would pick up a bunch of new customers. But it would be a particularly good deal for Iona, Zotto claims. That's because a takeover, even a friendly one, distracts people inside the acquired company. Innovation slows, salespeople gossip instead of selling, marketing plans get disrupted, and despite protestations from management that it's "business as usual," it's anything but. Zotto speculates that if Oracle gets BEA, it will retire BEA products. He knows you know that, too, and hopes that you'll consider alternatives like Iona.

$6.7B
Value of the deal BEA rejected from suitor Oracle last month.

BPM Can't Wait for IT

Michael Beckley spends a lot of time talking to your co-workers on the business side because you're often too busy or indifferent to talk to him about business process management. BPM "caught IT departments off guard," contends Beckley, CTO at Appian Corp. in Vienna, Va. As a result, he says, business unit managers have been "going around IT" and buying BPM tools. Does it matter to CIOs? Beckley thinks so. "The danger for IT is that they have business users going off and creating islands of processes on their own," he says. If that happens, you'll need to fix it one day. So, why wait? Beckley argues that IT leaders should grab a hold of BPM like they did with business intelligence, and take the lead in planning and deployment. Of course, Appian isn't making it harder for business units to get a hold of BPM tools; it's making it simpler. For example, Beckley says, the firm will add prebuilt business processes to its Appian Anywhere software-as-a-service in Q1 of next year to make it easier for business folks to customize the hosted offering for their own BPM needs. ■

Beckley: IT needs to step up to BPM.

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PHOTO BY IBM

Dossier

Name: Deborah Magid

Title: Director of software strategy

Organization: IBM Venture Capital Group

Location: Menlo Park, Calif.

Something people don't know about her: She plays the harpsichord and used to perform chamber music on the side.

Role models: "Anton Rubenstein, who at the age of 81 played a grueling but exquisite Chopin concert with four encores, blowing kisses to the audience. Jimmy Carter, who now has an amazing and generous career. David Bowie, who is brilliant about art in all its forms and was one of the first public figures to really embrace the Internet and technology to form communities."

Favorite movie: *The Third Man.* "Orson Wells' voice, Graham Greene's script, the cinematography and Karas' zither music get me every time!"

Ask her to do anything but . . . "Don't make me repeat myself!"

Book on her nightstand: "I am rereading the old Continental Op stories. Did you know that you can follow Dashiell Hammett's trail through San Francisco?"

■ THE GRILL

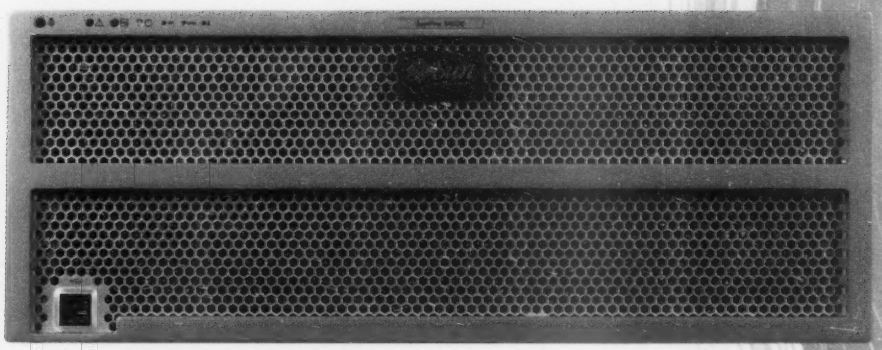
Deborah Magid

IBM's software strategist talks about the company's **recent acquisition spree**, how and **where it shops,** and **global hot spots for innovation.**

IBM has been particularly acquisitive this year, having snapped up DataMirror Corp., a data management vendor; Princeton Softech Inc., a data archiving company; Watchfire Corp., a Web application security provider; and, most recently, Cognos Inc., a business intelligence vendor. Deborah Magid has played an instrumental role in the company's software growth strategy.

How would you describe IBM's mergers-and-acquisitions philosophy? We use M&A as part of our software strategy. So whenever we look at the software business as a whole or a set of products, we look at what customers need,

Continued on page 26



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> **We almost always buy companies we're working with so that we know what we're getting into.**

Continued from page 24

what we have or don't have, whether we should build products ourselves, build out functionality or buy something. Also, when we buy companies, we almost always buy companies we're working with so that we know what we're getting into.

How does IBM develop those relationships? Usually through the IBM partner program. Businesses evolve, so in cases where a partnering model may evolve, over time it may appear that it makes sense to buy the company instead of partnering with them.

In terms of software, how does IBM's acquisition strategy differ from that of competitors? I think the key thing is that we're looking for innovation wherever it can be found — in a small company overseas or in our own labs. We've acquired tiny companies and [done] deals north of a billion dollars.

Also, IBM has close relationships to entrepreneurs and to investors. We see a lot of young companies and innovative things ahead of the market, and we can advise our own business leaders about what [acquisitions] they might want to be interested in.

Recent acquisitions have centered around Web application security, data management, data capture and Web conferencing. How do these fit into IBM's product strategies? These are capabilities that we're trying to bring into our products.

Take the data management business. In the past, information management in our business and others was about the database — how you stored data and how you retrieved it.

Now it's more about how you mine data, how you analyze it, how you apply it to your business. A company like Princeton [Softech], which was purely storage-based in 2000, was moving into data governance like we were.

What are the hottest areas for IBM's software group right now? Security has always been a hot area. That's true in the venture capital marketplace and in our own business.

One of the reasons we bought Watchfire is that the security market has changed. A few years ago, it was about access control and access authentication. Now, it's more about [securing] the applications and the data itself. That's one area that's hot.

Information management continues to be very important for customers. There are a lot of interesting things happening with enterprise search and analytics.

Have your recent travels taken you to hotbeds of technology development? I have been spending a lot of time in Ireland. Maybe that will be illustrative. The Irish government has business development agencies to not only bring business into Ireland, but to grow new businesses. They put seed money into brand-new companies and a lot of software companies around Dublin and biotech companies around Galway. I was just there in August with Steve Mills, head of our software group.

What other regions are hot? Eastern Europe. There's no doubt that there's a lot of skill and entrepreneurship going on there, in places like Estonia, Slovenia, Hungary, the Czech Republic.

The other place that's interesting is South Africa. This is another region where the private equity and venture capital markets have grown a lot in the last 18 months. There are a lot of Internet services companies there.

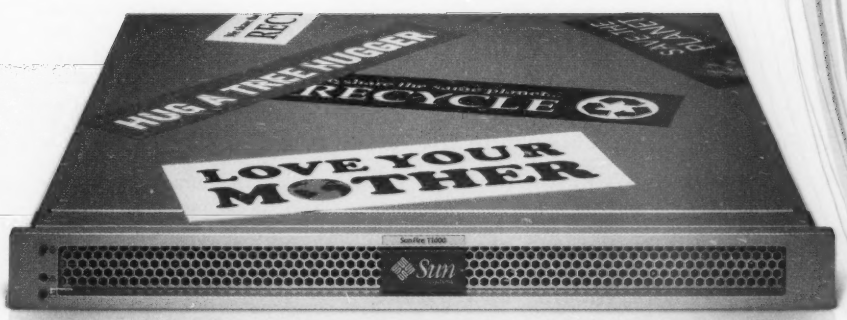
What types of technology companies have you looked at in China? In China, we've looked at things related to our hardware business, such as blades, servers and semiconductors. This is another area where there are lots of Internet services businesses. We haven't done business with them yet. We're also tracking a lot of what's happening with games developers, online collaboration and virtual worlds.

How about Latin America? There's quite a bit of activity in Brazil specifically. Brazil is one of the more active markets — a lot of software skills and Internet businesses.

The data management market seems to be popular on IBM's acquisition trail. Are there areas where IBM is looking either to fill a product or functionality gap or to move quickly into an emerging market? The important trend is what happens with analytics and [business intelligence]. The use of information to run businesses has become much more sophisticated, not just for business, but for government and homeland security. We're expanding what we sell into government and other businesses.

For example, we bought a company called FRD in 2005 to help gaming companies look for people who were being fraudulent, looking at information based on their relationships. Now Homeland Security can use this to look at relationships and information about people who might be terrorists.

— *Interview by* **Thomas Hoffman**



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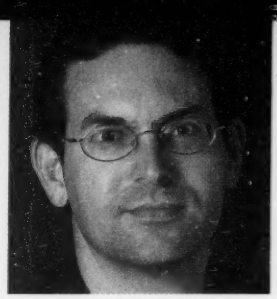
■ OPINION

John D. Halamka



Tech 'Safe Drivers' Deserve Discounts

AUTOMOBILE INSURERS have long seen the sense of giving drivers an incentive, in the form of safe-driver discounts, to avoid taking risks when they're behind the wheel. In health care, more and more payers are rewarding doctors for the quality of care they deliver and not the quantity. Aligning incentives with outcomes makes good sense.

Technology vendors should follow those examples and revise their pricing models for yearly hardware and software maintenance contracts. If they rewarded customers who adhered to best practices, they would essentially pay customers for their performance.

As a CIO of multiple companies, I have to sign off on a lot of maintenance contracts. These contracts have a list price, and the manufacturer usually passes along a discount to the value-added reseller. The VAR decides how much of the discount to pass along to customers. No extra consideration is given to customers who abide by the vendor's best practices for the implementation and management of its products.

But why not? Why not give technology buyers the equivalent of a safe-driver discount? If customers were given incentives to hire highly competent staffers, follow all vendor-recommended configurations and install all the latest upgrades, life would be better for both the vendor and the customer. The vendor would receive fewer support calls and requests for emergency priority service. The customer would get higher reliability, better performance and lower maintenance costs.

Five years ago this month, I experienced a devastating network outage. My only incentive to adopt best practices was fear of downtime. The cost of support was certainly not a factor. We could make hundreds of support calls and send out an SOS during numerous high-priority emergencies, and the cost would be the same as with a spotless record. The outage led me to replace much of our infrastructure, enhance my support team and ensure that our engineering practices are world-class. We now place an extremely low burden on our vendors, but our maintenance discounts for all the technology we operate today don't reflect that.

■ Why not reward customers who are less of a support burden?

Here's my idea: Vendors give each customer a yearly technology safety rating, starting at, say, 100 points. If you miss an upgrade, 10 points will be deducted. Deviate significantly from a recommended configuration, and you'll lose another 10. Make a support call because you lack appropriate IT staffing, and more points will be taken away.

Discounts would no longer be arbitrary. Instead, they would be a direct function of the yearly safety rating. The harder a customer worked to avoid calls for help, the less the maintenance would cost. The best customer of the year could even be rewarded with completely free maintenance.

Of course, there are potential problems. Vendors could abuse the system by defining best practices as the elimination of all competing products, or they could take away points if customers didn't buy all the optional add-on software they recommended.

But such tactics would defeat the spirit of this proposal. Any vendor that adopted them could expect a good deal of pushback from customers; hopefully, they would see that such transparently cynical ploys have no real value.

So let me publicly ask my good friends at Cisco, EMC, Dell, HP and IBM, What do you think? You'll find that my driving record is exemplary. ■

John D. Halamka *is CIO at CareGroup Healthcare System, CIO and associate dean for educational technology at Harvard Medical School, chairman of the New England Health Electronic Data Interchange Network, CIO of the Harvard Clinical Research Institute and a practicing emergency physician. You can contact him at jhalamka@caregroup.harvard.edu.*

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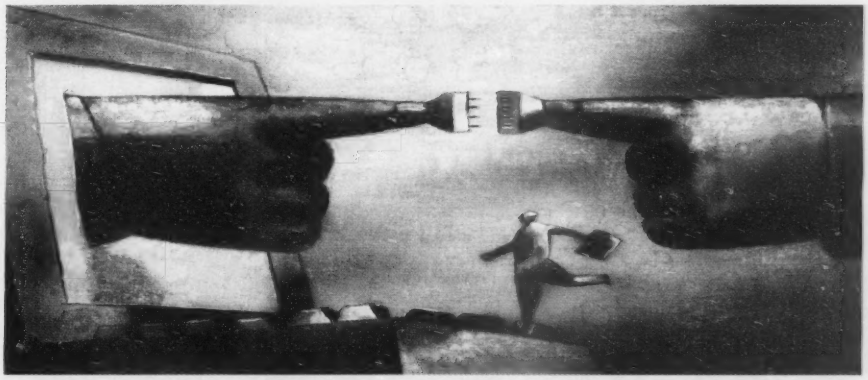

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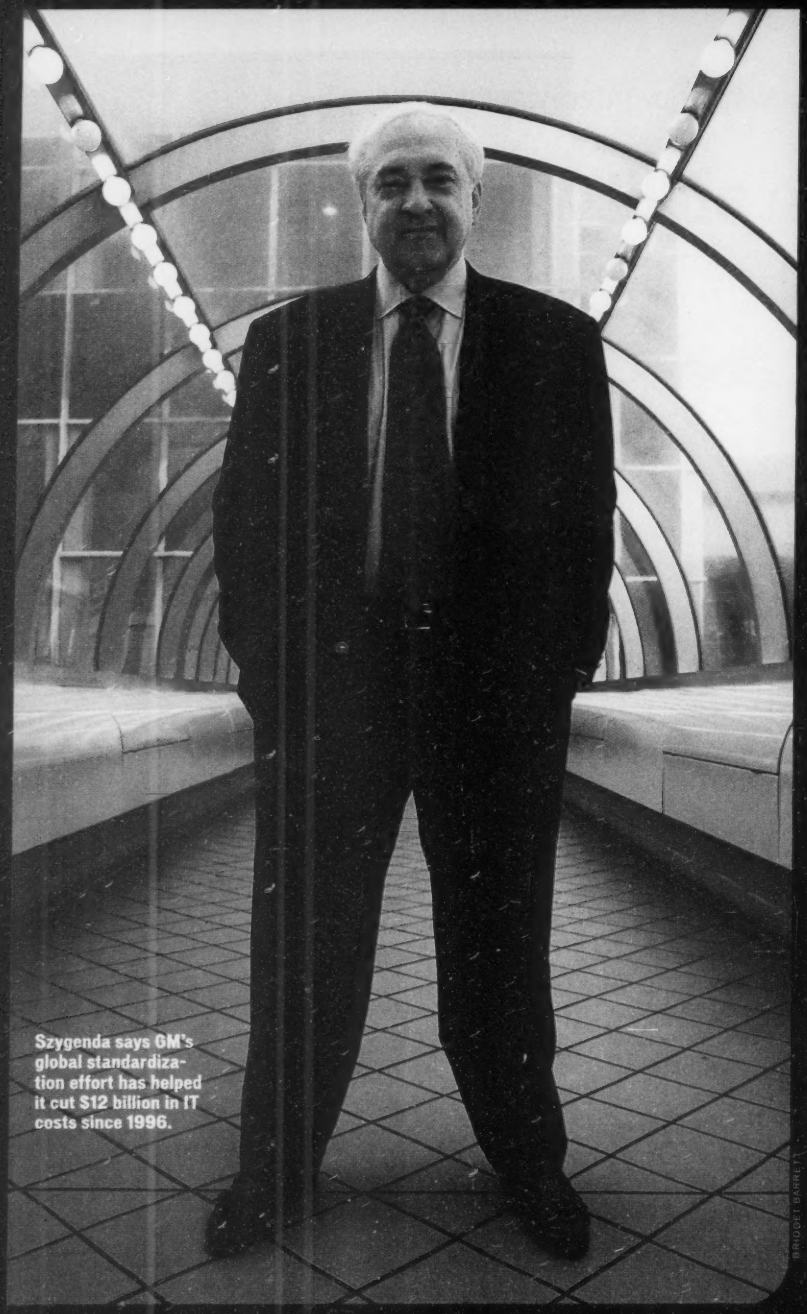

Szygenda says GM's global standardization effort has helped it cut $12 billion in IT costs since 1996.

BRIDGET BARNET

■ COVER STORY

GM's Global

When General Motors talks worldwide standards, its

IN 2003, General Motors Corp. CIO Ralph Szygenda saw the company's future through a global lens. At the time, GM's business leaders were getting serious about globalization, and they recognized the need to seamlessly manufacture and distribute products across geographies. The notion of creating a complementary set of common IT business processes worldwide was already a gleam in Szygenda's eye, says Dan McNicholl, chief strategy officer for GM's IT organization.

Although GM had a global presence, the company was moving away from a heavily decentralized business model where many divisions had been accustomed to running their operations autonomously.

RELATED STORY
MAKING IT REAL
Want to get started on ITIL?
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Szygenda and his top executives realized that to support GM's emerging cross-border business philosophy, they'd have to change the way they approached IT. That meant shifting from using a highly fragmented support structure to standardizing on a set of 44 common IT business processes, a transition facilitated through the use of the Information Technology Infrastructure Library (ITIL), Capability Maturity Model and Six Sigma quality management techniques, says Szygenda.

The trickiest part: As global planning continued, GM reoutsourced its IT operations to Electronic Data Systems Corp. and six other primary IT providers in June 2006, placing 29 of those 44 processes in the hands of outside vendors.

The outsourced processes cover critical areas such as how GM goes about gathering requirements definitions for

Under the Hood

COMPANY	IT ACTIVITIES SUPPORTED	GM STAFF SIZE
EDS	Application development, IT outsourcing, application maintenance; some business process outsourcing services such as call center support for parts of GM in North America and Europe.	Several thousand
Hewlett-Packard	Hosting services for ERP systems, product development and Asia-Pacific region; application integration services for manufacturing, product development and GM's SAP environment; some application support and maintenance for HP desktops and servers.	1,100-plus
IBM	Application support; aftermarket support systems; large-scale systems integration and application services; call center support for customer care and dealer care in North America.	500
Capgemini	Application integration management for GM's enterprise, global sales services and marketing, business services and purchasing/supply chain units; application development and maintenance for the latter three areas.	800-850
Covisint/ Compuware	Business-to-business messaging and integration services for supply chain collaboration with 18,000-plus GM suppliers.	Not disclosed
Wipro	Integration of middleware systems and GM's Information Systems and Services software tools for divisions including product development and engineering, manufacturing and quality, global purchasing, business services, GMAC, OnStar, and global sales, services and marketing.	Not disclosed

its 500 annual development projects and how it determines the cause of a system disruption, says McNicholl.

The business process overhaul has included the consolidation of hundreds of existing individual contracts into a more manageable set of 40-plus agreements, mostly organized by business process area, Szygenda says. And since the outsourcing began, GM's information systems and services group has managed more than 160,000 IT transition tasks with no significant business disruption, he adds.

SPEEDING ALONG

It's a heady challenge for GM's seven core IT outsourcers to carry out this plan on a global scale. GM is "trying to push the [outsourcing] services sector harder and faster than that sector [would] move by itself," says Bobby Cameron, an analyst at Cambridge, Mass.-based Forrester Research Inc., who recently met with Szygenda and his top IT executives.

> **"I've learned more about my competition in this project than I have in the last 27 years of my career.**
>
> **JIM ANGERS,** VICE PRESIDENT AND GENERAL MANAGER OF THE GM ACCOUNT AT HEWLETT-PACKARD CO.

GM's core IT vendors — EDS, IBM, Hewlett-Packard Co., Capgemini, Wipro Ltd., Covisint and Compuware Corp. — didn't really have much of a choice about complying with GM's vision. GM is a huge customer, and they had their marching orders.

But to help ensure a smooth transition — and because the processes require close interaction and even dependency among GM's IT organization and its suppliers — GM enlisted them to help design the standardized work processes, says McNicholl.

GM then provided formal classroom and Web-based training to thousands of IT workers scattered across its providers, and it plans to conduct additional training beginning early next year.

Even for GM suppliers such as HP, which has extensive ITIL experience, the transition to a common set of IT business processes across a company as humongous as GM hasn't been easy. "The big difference to GM's approach is the whole focus on collaborating with other suppliers," says Jim Angers, an HP vice president and general manager of the GM account.

"We don't know of too many clients, if any, on the size and scale of GM that are pushing to be global," says Mark West, IBM's global sales and service marketing process executive in Detroit. The bulk of IBM's services support teams for other clients continue to be organized on a country or regional basis, he says.

Collaboration between technology services companies such as HP and IBM "was not natural at first," since these vendors are so accustomed to competing against one another, says

Positioning

outsourcers listen.

By Thomas Hoffman

Angers. "At first, people behaved like it was an intellectual property issue, and really, it's not," he says.

Angers says he and his peers at other companies on the GM account have since learned to work closely with one another, and HP's relationship with those companies "gets better on a day-to-day basis."

For example, as part of its agreement to provide hosting services to GM, HP recently had to relocate 300 servers from EDS sites in Plano, Texas, and other places to HP sites in Asia and Toronto. To ensure a smooth transition that didn't affect operations, HP worked closely with IBM and EDS, the key application providers, says Angers.

"We have been joined at the hip for the past several months," he adds. "I've learned more about my competition in this project than I have in the last 27 years of my career."

OWNER'S MANUAL

The consistency of the training program for 8,100 workers both inside the company and among outsourcing suppliers has been crucial in driving the adoption of standardized IT work processes. Multiple Tier 2 and Tier 3 subcontractors that help support GM also required training, which was delivered by Tier 1 vendors.

For instance, Capgemini, which handles application development and maintenance for three of GM's businesses, provided training on the standardized business processes for 200 application developers at Indian subcontractor Satyam Computer Services Ltd.

This is not to say there were no bumps in the road. "There are always problems when you put together individuals who haven't worked together before," says Paul Spence, CEO of global outsourcing services at Capgemini and the vendor's top executive on the GM account. "It was a matter of determining where the [common] work processes weren't being followed and then resolving them."

Szygenda says the IT business process effort is coming along better than he would have expected at this point, driven mostly by consistent communication between GM's IT executives and supplier teams. To date, he says, the common IT business processes are being executed effectively about 75% of the time. And though he says it will take more time for GM's IT partners to fully adapt to the global support model, others, like EDS's Mike O'Hair, say they're heartened by the level of cooperation and interaction that has occurred among age-old rivals. "You can't tell what company a person works for," says O'Hair, the vendor's regional general manager on the GM account.

Financial incentives help entice the vendors to play nice with one another. When GM announced the multisupplier outsourcing deal in 2006, half of the anticipated $15 billion in planned spending over the five-year agreement was earmarked for new system development and deployment — opportunities for which the seven outsourcers are the primary pool of bidders. (GM reserves the right to cast its net wider to include other vendors if there's a compelling reason to do so.)

GM also puts together biannual report cards on each of the seven vendors and other key suppliers. Their performance affects their eligibility to bid on new application development or deployment.

In addition, GM periodically audits its IT suppliers, McNicholl says. The audits enable its IT executives to determine whether the standardized business processes are meeting the needs of business users.

GM's approach appears to be catching on. Forrester's Cameron says he's starting to see a few other multinational companies apply global, multisupplier IT outsourcing models that are similar to what GM has constructed. Among them is a large consumer goods company he's not at liberty to name.

Although Szygenda says it's tough to quantify the effect that the process-standardization effort has had on the business, GM is now spending $3 billion annually on IT. That's $1 billion less than in 1996, and Szygenda attributes that to IT efficiencies the company has achieved. He adds that GM has cut a staggering $12 billion in IT costs since 1996 and has reinvested $7 billion back into IT.

At the end of September, GM inched past Toyota Motor Corp. to reclaim the title of the world's biggest automaker, having sold 7.06 million vehicles in the first nine months of the year, compared with 7.05 million for Toyota. Whether GM's efforts will enable it to recapture its dominance of the world's automotive industry is yet to be seen. "That story," says Szygenda, "will be told 10, 20 years from now." ■

Innovation Takes a Front Seat

ONE OF THE SIDE BENEFITS of GM's multivendor outsourcing alliance is the access the company gets to innovative work being done by the vendors. Although AT&T Inc. is not one of GM's seven primary outsourcers, its relationship with the automaker demonstrates the synergies that can be gained.

AT&T began conducting the bulk of its research of Multiprotocol Label Switching at GM facilities in February 2003. AT&T benefits from its relationship with GM because it can deploy its MPLS technology in new markets through a global customer on a large scale, says Dave Cross, vice president at AT&T Global Business Services in Detroit.

In addition, AT&T has been able to test new MPLS features, such as caching and video capabilities, at GM, says Cross. "These are all things GM is pushing us on and keeping our lab guys very busy," he says.

The MPLS development work has enabled GM to discard some of its older technologies, such as telephone switches, says Mike Wilson, global director of telecommunications, global voice and data at GM. AT&T's MPLS network will also allow GM to consolidate more than 100 voice-mail systems it's currently using around the world into a single system by the end of 2008, says Wilson.

"We want to provide a consistent user experience, no matter where you are in the world," says Brian Rice, services information officer at GM.

The arrangement is a win for everybody, says GM CIO Ralph Szygenda. "We get [AT&T's] latest technology, and they get to make it work through our globalization."

– THOMAS HOFFMAN

_INFRASTRUCTURE LOG

_DAY 84: Feeling really disconnected. We're not getting the most out of our existing assets. Service and application integration is a nightmare. We've got to stop working on these islands.

_Please rescue me from this lack of connectivity.

_DAY 87: We're saved! With IBM WebSphere solutions we can service-enable and connect our existing assets for mission-critical goals. Now we can reuse existing applications and save money by eliminating redundant systems. We're ready for any SOA integration project.

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Making It Real

How companies get started on ITIL.

IN 2004, the Food Lion supermarket chain needed to automate its change management to help comply with the requirements of the Sarbanes-Oxley Act. It decided to adopt ITIL's change management processes, but initially it put aside the rest of the best-practices framework. "We're not going to do everything ITIL says to do — not if it doesn't make sense for us," says Dale Edmiston, the company's senior manager of IT operations.

Even so, Salisbury, N.C.-based Food Lion LLC soon began to look seriously at the other pieces of ITIL and has been expanding its adoption ever since.

Like many companies, Food Lion turned to ITIL to help with one problem area and ended up using it much more widely. That's because ITIL — the Information Technology Infrastructure Library — is a framework of IT best practices that has something for everyone. The service support and service delivery sections, for example, include guidance for incident management, problem management, configuration management, change management, release management, IT financial management, IT continuity management, capacity management and service-level management. Try finding a company that doesn't need improvement in at least one of those areas.

> **"[ITIL projects are] always evolving, with continuous cycles of improvement.**
> **DALE EDMISTON,** SENIOR MANAGER OF IT OPERATIONS, FOOD LION

RELATED STORY
GM'S GLOBAL POSITIONING
ITIL is helping GM set global standards.
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In fact, the breadth of ITIL can make it seem intimidating. "We have to explain exactly what ITIL is, what value it brings and how to get the process going," says Rick Lemieux, vice president of ITSM Solutions LLC, an ITIL training company in Lexington, N.C.

But the bottom-line value is something anyone in IT can understand. "ITIL teaches you what you should be doing to align the IT goals with the business," says Lemieux.

START SMALL

Although adopting ITIL involves a lot of work, it is not terribly complex, especially when you take it one step at a time, starting with the areas that need the most improvement.

At Carfax Inc., a provider of vehicle history records in Centreville, Va., the

Continued on page 36

ITIL: What It Is

According to the ITIL Open Guide (*www.itilibrary.org*), "The Information Technology Infrastructure Library defines the organizational structure and skill requirements of an information technology organization and a set of standard operational management procedures and practices to allow the organization to manage an IT operation and associated infrastructure. The operational procedures and practices are supplier independent and apply to all aspects within the IT infrastructure."

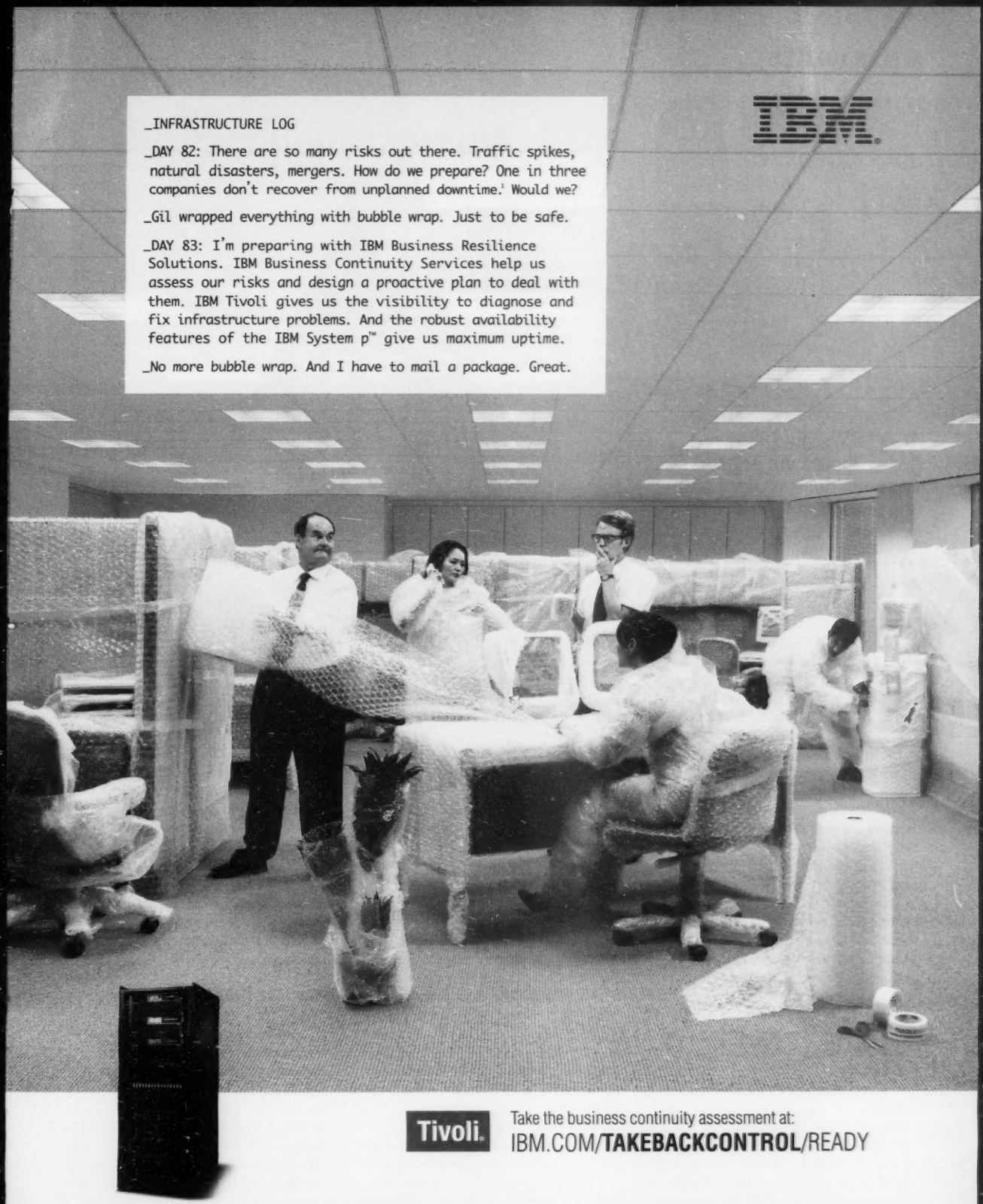
Where It's Going

Developed by the U.K.'s Office of Government Commerce for British agencies, ITIL has been widely adopted by European organizations.

ITIL VERSION 2, published in 2001, is what most organizations with ITIL projects are currently using. ITIL v2 comes in a set of eight books: *Business Perspective* (two volumes), *Service Support*, *Service Delivery*, *Security Management*, *Application Management*, *Infrastructure Management* and *Planning to Implement*.

ITIL VERSION 3, published in mid-2007, uses most of the v2 content but reorganizes it into a life-cycle structure composed of *Service Strategy*, *Service Design*, *Service Transition*, *Service Operation* and *Continual Service Improvement*. "It provides an implementation approach, as opposed to just giving people the processes and telling them to get on with it," says David Cannon, ITSM practice principal at HP Education Services and author of the ITIL v3 book on service operation.

– SUE HILDRETH


_INFRASTRUCTURE LOG
_DAY 82: There are so many risks out there. Traffic spikes, natural disasters, mergers. How do we prepare? One in three companies don't recover from unplanned downtime.[1] Would we?
_Gil wrapped everything with bubble wrap. Just to be safe.
_DAY 83: I'm preparing with IBM Business Resilience Solutions. IBM Business Continuity Services help us assess our risks and design a proactive plan to deal with them. IBM Tivoli gives us the visibility to diagnose and fix infrastructure problems. And the robust availability features of the IBM System p™ give us maximum uptime.
_No more bubble wrap. And I have to mail a package. Great.
IBM.
Tivoli.
Take the business continuity assessment at:
IBM.COM/TAKEBACKCONTROL/READY

[1]Source: "Business Continuity Unwrapped," Continuity Central, 2006, www.continuitycentral.com/feature0358.htm. IBM, the IBM logo, System p, Take Back Control and Tivoli are trademarks or registered trademarks of International Business Machines Corporation in the United States and/or other countries. ©2007 IBM Corporation. All rights reserved.

"We asked, 'Where should we improve?' Then we did a project plan and said, 'Let's go deliver it.'

CATHY KIRCH,
PROCESS CONSULTANT, ALLSTATE

Continued from page 34

trouble area was capacity planning. "That's what got us started," says senior analyst Robert Stinnett. "We liked how ITIL handled capacity planning, so it just sort of grew."

Stinnett's experience with ITIL began in 2004, when Carfax bought BMC Software Inc.'s Control-M enterprise job-scheduling software. BMC offered classes on ITIL, so Stinnett and his colleagues signed up.

For Carfax, the first step toward applying ITIL was to diagram IT processes and workflows. "We had huge flowcharts on the wall — for a credit card process or the running of a vehicle history report," says Stinnett. "We broke each process up into services, like the dealer log-in, with Server A talking to Server G, and so on," says Stinnett.

Carfax also purchased BMC's Atrium configuration management database (CMDB) to serve as a central repository for data on Carfax's IT assets and processes. A CMDB is a core component of ITIL.

Carfax manually populated the CMDB with information such as hardware and network configurations, the physical locations of enterprise applications, and the other applications and databases with which each system exchanges data. The CMDB became a comprehensive inventory and description of all the hardware, software and integration links throughout Carfax's IT environment.

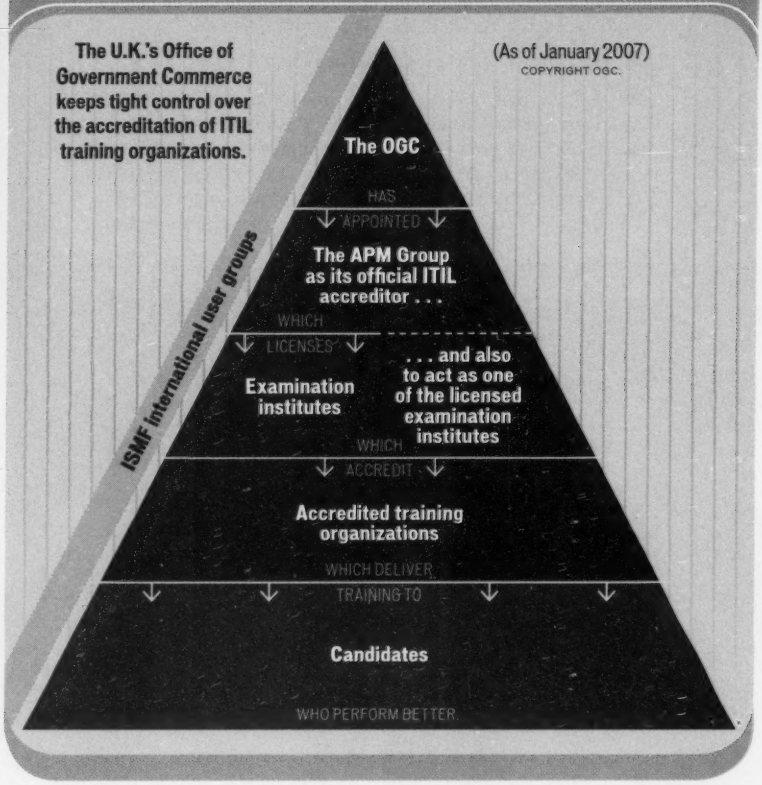
That effort took about a year. "We went through old documents, asked departments what servers they had, what software, what services they provide to the enterprise," Stinnett says.

Using BMC's service-modeling editor, Service Impact Manager, they also put the workflow diagrams into the Atrium CMDB, showing how processes and transactions move from one application to another. Those can now be easily updated.

Since implementing the CMDB and the service-modeling tool, Carfax has reduced manual IT tasks by about 400% over the past two years, says Stinnett. For example, IT staff can automatically see which other systems will be affected by a planned upgrade and make adjustments for it without having to spend hours analyzing the upgrade and then troubleshooting the inevitable postupgrade glitches. "It's helped us to track our changes and do capacity planning better," says Stinnett.

He thinks of the various ITIL processes as Tinker Toys, to be used as needed. "You can build what you want to out of them," he says. "There are no hard and fast rules that you have to implement this or that."

ITIL Accreditation Process



ALLSTATE ASSESSMENT

Allstate Insurance Co. in Northbrook, Ill., has been involved with ITIL since 2002, when a small group of IT employees persuaded upper management to send them for training. Today, the company has adopted ITIL across its IT organization and sent hundreds of IT employees for training to get certified.

To decide where to begin its ITIL implementation, the IT department de-

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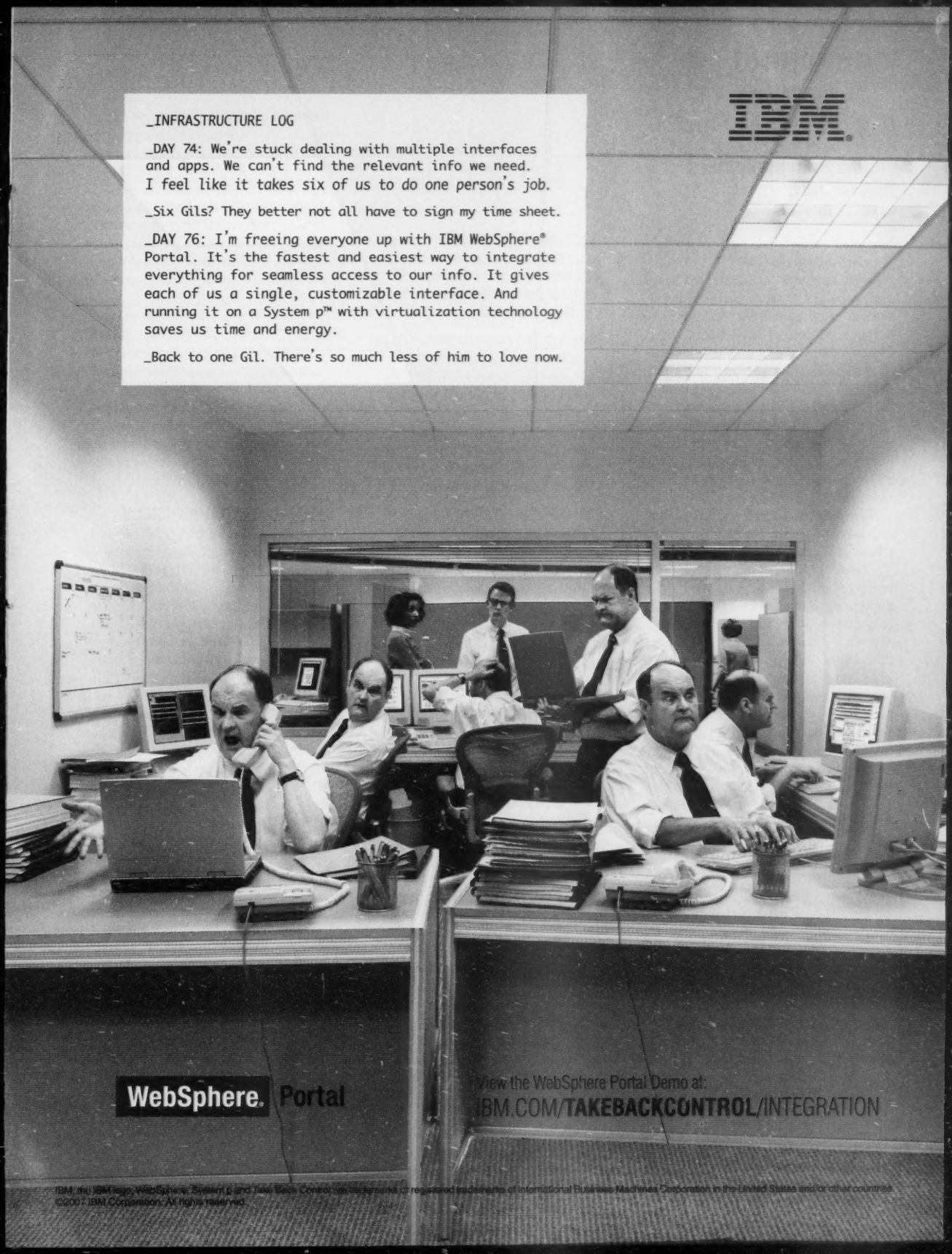
_INFRASTRUCTURE LOG
_DAY 74: We're stuck dealing with multiple interfaces and apps. We can't find the relevant info we need. I feel like it takes six of us to do one person's job.
_Six Gils? They better not all have to sign my time sheet.
_DAY 76: I'm freeing everyone up with IBM WebSphere® Portal. It's the fastest and easiest way to integrate everything for seamless access to our info. It gives each of us a single, customizable interface. And running it on a System p™ with virtualization technology saves us time and energy.
_Back to one Gil. There's so much less of him to love now.
IBM
WebSphere. Portal
View the WebSphere Portal Demo at:
IBM.COM/TAKEBACKCONTROL/INTEGRATION

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"There are no hard and fast rules that you have to implement this or that.

ROBERT STINNETT,
SENIOR ANALYST, CARFAX

Continued from page 36

veloped a maturity scale to rate its various processes. Most organizations use some type of maturity scale, such as the Capability Maturity Model, for assessing their IT operations. ITIL contains its own means of assessing the service maturity of an IT organization, called the Process Maturity Framework.

The team at Allstate used the maturity scale to assess each practice, including capacity management, availability management and service-level management: How well did it work? Did employees understand proper procedures and follow them? How consistent was the documentation?

They decided to work on incident management, change management and configuration management. "We asked, 'Where should we improve?' " says Cathy Kirch, an Allstate process consultant. "Then we did a project plan and said, 'Let's go deliver it.' "

Kevin Pugh, an Allstate process consultant who works with Kirch, notes that understanding, and then documenting, the interdependencies and handoffs between processes is critical to success with ITIL. "Problem management can't analyze and fix something if it's not been documented first in incident management," he says. "Just like if a police officer doesn't make out a report, then the detective has nothing to work on."

BIG-BANG APPROACH

Unlike many organizations, Tarrant County, Texas, opted from the start for a large-scale adoption of ITIL. The county's IT department began the process in September 2005 by hiring Pink Elephant Inc., an international ITIL consulting firm, to conduct a formal analysis of its practices. The resulting 20-page report rated IT operations as "fairly immature across the board," says Pete Rizzo, director of operations. "For instance, we didn't have a service desk. We had a help desk. A help desk answers a call and passes it on to someone else. A service desk answers the call with the goal of resolving the issue."

Early on, IT employees attended a four-hour awareness class, given by ITSM Solutions, and 24 employees went on to achieve ITIL certification.

Once certified, employees can participate in one of several process introduction teams (PIT). These teams focus on a specific ITIL process, such as problem management. Each PIT has a cross section of employees — from the server group, the database administration group, desktop support and so on, says Jan Allred, project manager in IT operations for Tarrant County. (All team members also have full-time "day jobs" in the IT department.)

They decided to begin with incident and problem management and then move on to change and configuration management. With the help of a consultant, they compared their practices with ITIL's and created road maps for closing the gaps. For instance, they converted the help desk into an ITIL service desk and increased its staff and hours of operation. They expanded their Hewlett-Packard ServiceCenter software with modules for incident management, change management and configuration management.

In the process, they began to internalize ITIL's worldview. For example, says Rizzo, "ITIL defines incident management as rapid restoration of service, so if somebody's printer isn't working, the goal of the service desk is to help them print — not necessarily to fix the printer. It's the problem management side who finds the root cause of the printer's problem."

BEYOND SARBANES-OXLEY

Though the Sarbanes-Oxley Act and the need for better change management opened the door to ITIL at Food Lion, Edmiston and his staff soon became convinced of its value and decided to adopt additional ITIL processes, in combination with the Cobit standard for IT security and control practices.

"It's difficult to do one of the ITIL service areas without looking at related ones," Edmiston explains. "If you're doing incident management, you also need to look at problem and change management, because some incidents will require root-cause analysis and invoke a change."

Food Lion's IT group created cross-functional teams of 10 employees, and each team focused on one of four ITIL process areas to be implemented initially: change management, incident management, problem management and service-level management. Each team developed a road map of tasks needed to align the process with the ITIL model.

With the first four process areas well under way, two teams are now planning to focus on configuration and release management. But an ITIL effort is never really done, Edmiston says. "It's always evolving, with continuous cycles of improvement." ■

Hildreth *is an IT writer based in Waltham, Mass. She can be reached at Sue.Hildreth@comcast.net.*

Help With ITIL

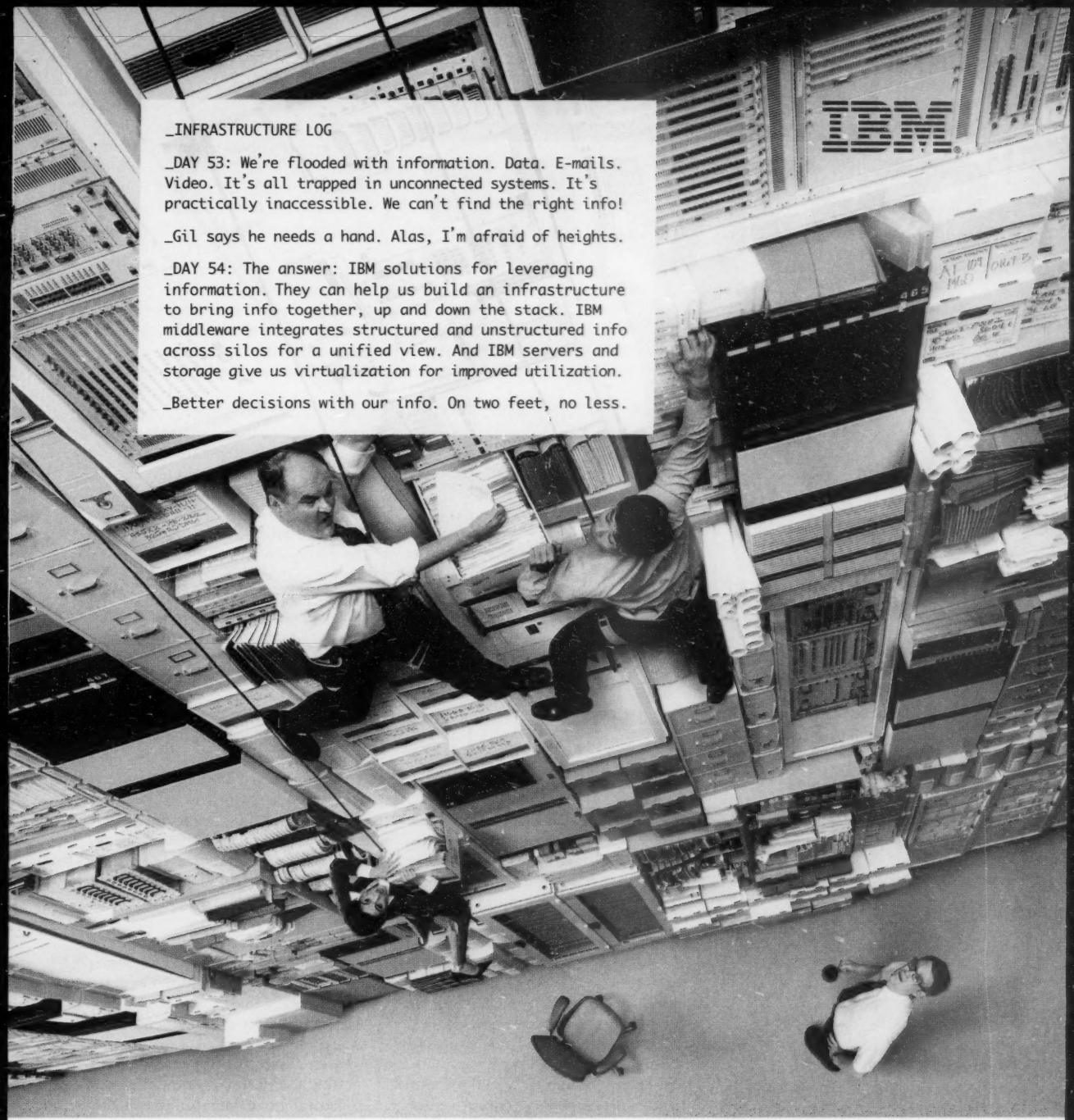
SOFTWARE: Many vendors have software that is designed to comply with ITIL standards. BMC Software, HP and IBM are among those catering to the ITIL-conscious.

CONSULTING AND TRAINING FIRMS: Pink Elephant, Evergreen Systems Inc., the ITSM Academy, ITSM Solutions and others offer ITIL services such as evaluations, staff training and consulting. It's a booming market, says ITSM Academy President Jayne Groll. "In 2003, people couldn't spell ITIL. In 2007, ITIL is mainstream."

SELF-SERVICE TOOLS: These can be found on many ITIL consulting Web sites. Three examples:

- **Evergreen Systems**
  www.evergreensys.com/doc_library/SelfAssessmentBusValueCalculator.pdf
- **Pink Elephant**
  www.pinkelephant.com/en-US/ResourceCenter/PinkVerify/SelfAssessment.htm
- **IT Service Management Forum**
  www.itsmf.com/bestpractice/selfassessment.asp

– SUE HILDRETH



_INFRASTRUCTURE LOG

_DAY 53: We're flooded with information. Data. E-mails. Video. It's all trapped in unconnected systems. It's practically inaccessible. We can't find the right info!

_Gil says he needs a hand. Alas, I'm afraid of heights.

_DAY 54: The answer: IBM solutions for leveraging information. They can help us build an infrastructure to bring info together, up and down the stack. IBM middleware integrates structured and unstructured info across silos for a unified view. And IBM servers and storage give us virtualization for improved utilization.

_Better decisions with our info. On two feet, no less.

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STORAGE 2.0

Web-based storage is coming, and its potential is huge. **By Robert L. Scheier**

This affects the big storage makers such as EMC. That's whose lunch Cleversafe will eat.

COMBINE OPEN-SOURCE software, distributed storage running on low-cost hardware and the World Wide Web, and what do you get? Storage for as little as 15 cents per gigabyte per month, and 10 to 20 cents more for each gigabyte users upload or download.

That's a pretty good deal, especially when it costs $15 to $25 per gigabyte just to buy the hardware and software needed for secondary (backup or archival) storage, and $50 and up per gigabyte for the primary storage needed for business-critical applications such as stock trading or airline reservations systems, according to Andrew Reichman, an analyst at Forrester Research Inc. Neither of these prices takes into account ongoing management costs.

But don't throw away your Fibre Channel storage-area network (SAN) just yet. These Web-based services lack the performance required for online transactional applications or giant database queries. There are also questions about security and how much data companies are willing trust to a node somewhere on the Internet.

Still, a combination of three technologies could reduce corporate reliance on higher-priced, proprietary storage hardware and software from industry giants like EMC Corp., IBM and Hitachi Data Systems Corp., not to mention a host of smaller vendors. And the established companies seem to be aware of the trend: In October, EMC acquired Berkeley Data Systems Inc., whose Mozy services provide Web-based backup to consumers and businesses.

THE TECHNOLOGIES

The first piece of the technology puzzle is open-source storage software. Examples of promising open-source applications include tools for specific storage functions, such as the Amanda open-source backup system and the Darik's Boot and Nuke disk-wiping utility. Others include network file systems such as Lustre, OpenAFS and Samba, which can form the foundations of entire storage infrastructures.

Next on the list are distributed grid- or cluster-based storage architectures from start-ups like Cleversafe Inc. and established services like Mozy.

And those architectures are built using the third technology: industry-standard servers and disk drives, which supplant high-end storage arrays.

For example, the MozyPro online backup service uses Berkeley storage-clustering and file-serving software running on "white box" (unbranded) servers that store data on their internal drives. The price: $3.95 per month for each desktop or server using the service, and 50 cents per month for each gigabyte of data stored. Unlike other online storage systems that store multiple copies of customers' data, Berkeley's software saves 33% of the original data, from which it can restore the complete original if needed. This means it must store only 33% more data than a customer sends it. In contrast, other storage providers must store 300% of the original data, says Vance

Continued on page 42

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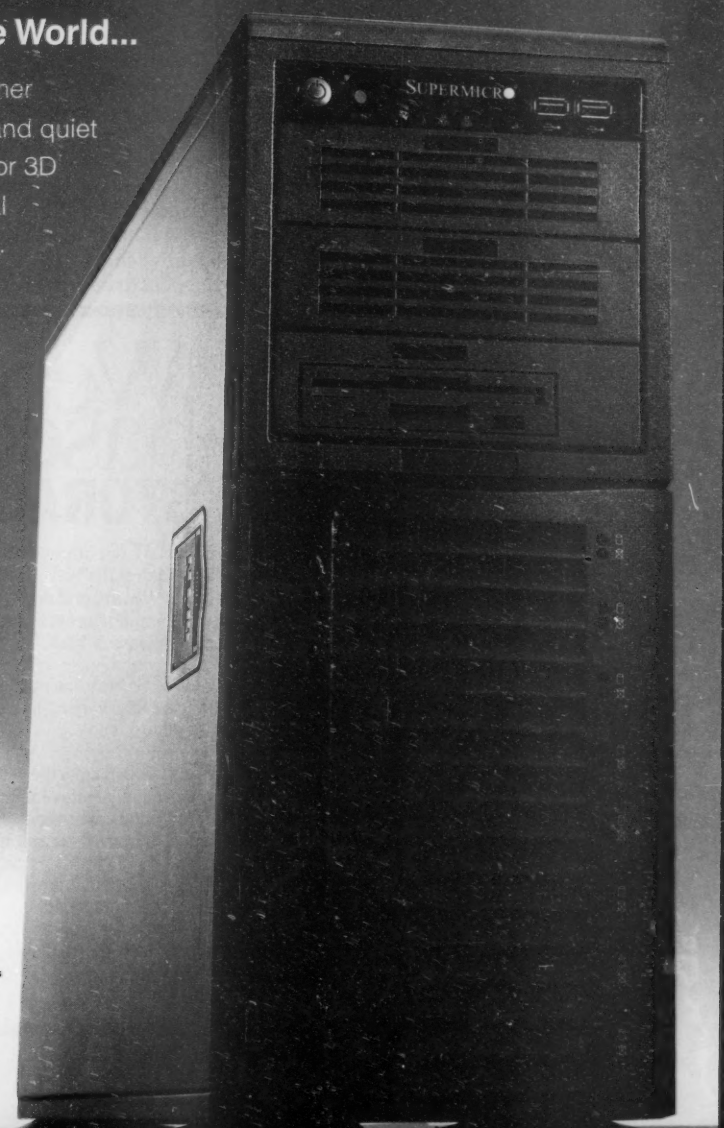

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Checketts, EMC's vice president for Mozy products.

Cleversafe, a start-up that is beta-testing software it will offer to other companies to build open-source, Web-based distributed storage architectures, goes further. Its software uses algorithms to split encrypted data into "slices" that are stored on distributed servers and must be combined to yield any usable information. CEO Chris Gladwin says that the data-slicing is inherently secure because no one storage node contains an entire copy of any file, making it harder to steal or corrupt. Availability is also assured because the software can recover the data if some of the nodes fail.

The Planet.com Internet Services Inc., a Houston-based hosting firm, is investigating Cleversafe's Dispersed Storage software as a way to use older servers to create low-cost storage grids. "Instead of going for three years or four years, with the proper upgrades in disk drives, we could get five to six years of life out of them and at the same time offer storage to our customers," says Chairman and CEO Doug Erwin.

Perhaps the biggest provider of online storage services is Amazon.com Inc. Adam Selipsky, vice president of product management and developer relations for Amazon Web Services, says the company's S3 service is supported by "multiple arrays of storage servers at multiple locations, storing multiple copies" of customers' data. Designed for software developers who could benefit from using low-cost storage as they experiment building new applications, the service costs 15 cents per month for each gigabyte of data stored, 10 cents for each gigabyte uploaded, and 13 to 18 cents for each gigabyte downloaded. Selipsky declines to describe the technology used in S3 in further detail, except to say that Amazon "predominantly uses open-source software" throughout its infrastructure.

GAME-CHANGER?

John Webster, an analyst at Illuminata Inc., says the combination of open-source software and grid storage technologies could pose a real threat to vendors of copy, backup and disaster recovery software. "If this approach really works, it's a game-changer" because it could fundamentally simplify storage management, he says.

If this approach really works, it's a game-changer.

By selling "storage devices that are grid-ready, [Cleversafe] completely disrupts the market," says Stelios Valavanis, president of onShore Networks LLC, a networking consulting firm in Chicago. "This affects the big storage makers such as EMC. That's whose lunch Cleversafe will eat."

Some other observers, however, predict that users will keep buying proprietary products for their most critical applications — in part because they're concerned about the inherent latency and unpredictability of the Internet.

Security is another concern. Jeff Pieper, president of Pieper & Associates Inc., a marketing design firm in Torrance, Calif., is the type of small-business customer the online storage vendors are courting. But he says he has to sign multipage nondisclosure forms with many of his customers, so he plans to keep their data on his 4TB SAN from Hitachi to be sure it's safe.

However, users who choose to build their own grids in-house can maintain control over their networks, and they might be more willing to use them for primary storage, says Webster.

Then there is the question of whether users of Web-based storage services actually save money. Reichman says upfront costs for distributed storage are undoubtedly far lower than they would be for in-house storage hardware, but it's still unclear how long-term management costs will compare.

Reichman predicted that small to midsize businesses will likely be first to use such services, to avoid the "tremendously difficult" job of managing their own storage. As these new technologies are proved, he sees larger companies moving more secondary storage to these third-party vendors. Others may adopt such technologies internally, he says, allowing them to reap the cost savings while maintaining control over their own storage. Some banks are already evaluating such moves, he says.

Any move to grid storage won't happen overnight, nor does it have to. A dramatically new approach such as Cleversafe's needs evangelization, says Valavanis, as well as time for the technology to mature.

Gladwin also points out that "IT organizations generally replace hardware every four years or so. If someone just bought a brand-new architecture, they're not going to scrap it six months later." In two to three years, though, Gladwin expects "that distributed architectures will become often used for large data-archival applications."

By that time, the pioneers on both the customer and the developer sides will have a much better idea of how big a storage revolution they have on their hands. ■

Scheier *is a former technology editor at* Computerworld *and a freelance writer based in Boylston, Mass. He can be reached at bob@scheierassociates.com.*

Web-based STORAGE

■ **WHAT IT IS:** Storage services delivered over the Web, using open-source software, grid or clustered storage architectures, low-cost standard hardware or both.

■ **PLUSES:** Very low cost, easy manageability, very high levels of scalability.

■ **MINUSES:** Lacks the performance and reliability required for very high-end applications. Security will be a concern for some customers.

■ **BOTTOM LINE:** Worth evaluating, at least for secondary applications such as backup and archiving. May also be worth deploying inside the corporate firewall.

– ROBERT L. SCHEIER

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Data Retention Gets a Second Look

How much data is too much? New e-discovery rules burden IT with searching archived information.

I WAS CALLED to our general counsel's office to discuss electronic-discovery laws that went into effect last year. I was glad, since addressing this topic is long overdue for us.

Top executives often come to recognize important issues in ways that are less than ideal. In this case, our attorney had attended a dinner conference sponsored by a vendor that suggested to its guests that its product was the answer to their e-discovery worries. The attorney described it as an elegant dinner — you would expect fine wine, but he apparently had drunk the Kool-Aid.

We are not required by any current industry certification, attestation or regulation to retain data, other than our financials, which is a Sarbanes-Oxley Act and IRS requirement. But we nonetheless retain a lot of data, and e-discovery regulations are a good reason to re-evaluate our retention policies.

I'm not a lawyer, but here's what I understand about the e-discovery amendment to the Federal Rules of Civil Procedure. Say, for example, that an employee accuses a supervisor of harassment. The human resources and legal departments could then anticipate that there might be some sort of legal action. Under the new rules, the IT department would have to begin collecting all digital communications that the parties involved had sent or received. We would take similar action if the company was subpoenaed and ordered to collect relevant communications.

There are many more instances that could trigger the e-discovery provisions, but the key thing is that retention is not required before some triggering event occurs. But if you have retained data, that is also subject to e-discovery.

So, if we didn't have a retention policy, we wouldn't have any archived data to search and provide to the authorities. We wouldn't have to expend resources to search through archived data. And we're talking about a lot of resources, both in time and money, with the money going to pay for a product like the one our general counsel had heard about at the dinner. That's why we need to decide whether to adjust our data retention policy.

■ If we didn't have a retention policy, we wouldn't have any archived data to search.

RETENTION ISSUES

As I said, we retain a lot without being required to do so. And our company is hardly unique. We back up certain data repositories — source code, design documents, service manuals and device configurations — to handle various disaster recovery and business continuity issues.

Of course, we also provide our employees with e-mail and a "home" directory: a dedicated drive share on a Windows file server for storing business-related data. Those 8,000 home directories and e-mail accounts get backed up every night. But while e-mail is stored on a server, mail relays also contain information related to the receipt of e-mail. We use IP telephony, and voice-mail messages are stored as .wav files on a server, but they can also be sent to an employee's e-mail.

Any or all of that data could become subject to e-discovery. And we need to fully understand where all of our discoverable digital data resides so that we could act accordingly if and when we were presented with an e-discovery request. Searching through it all would be a great burden on IT. Within the coming weeks, I will be talking with our IT, HR and legal departments. We will discuss how much data we will retain. If we decide to continue retaining data in volume, we will need to draw up a plan for sifting through it when the need arises.

Of course, we could solve a lot of problems by turning back the technological clock. The courts distinguish between information on paper and digital records. For paper information, it's simple: Point the lawyers to the file cabinets and tell them to have a good time. ■

This week's journal is written by a real security manager, **"Mathias Thurman,"** *whose name and employer have been disguised for obvious reasons. Contact him at mathias_thurman@yahoo.com.*

Trouble Ticket

ISSUE: New e-discovery rules have implications for data retention.

ACTION PLAN: Consider doing a lot less, or come up with a plan for searching through it all.

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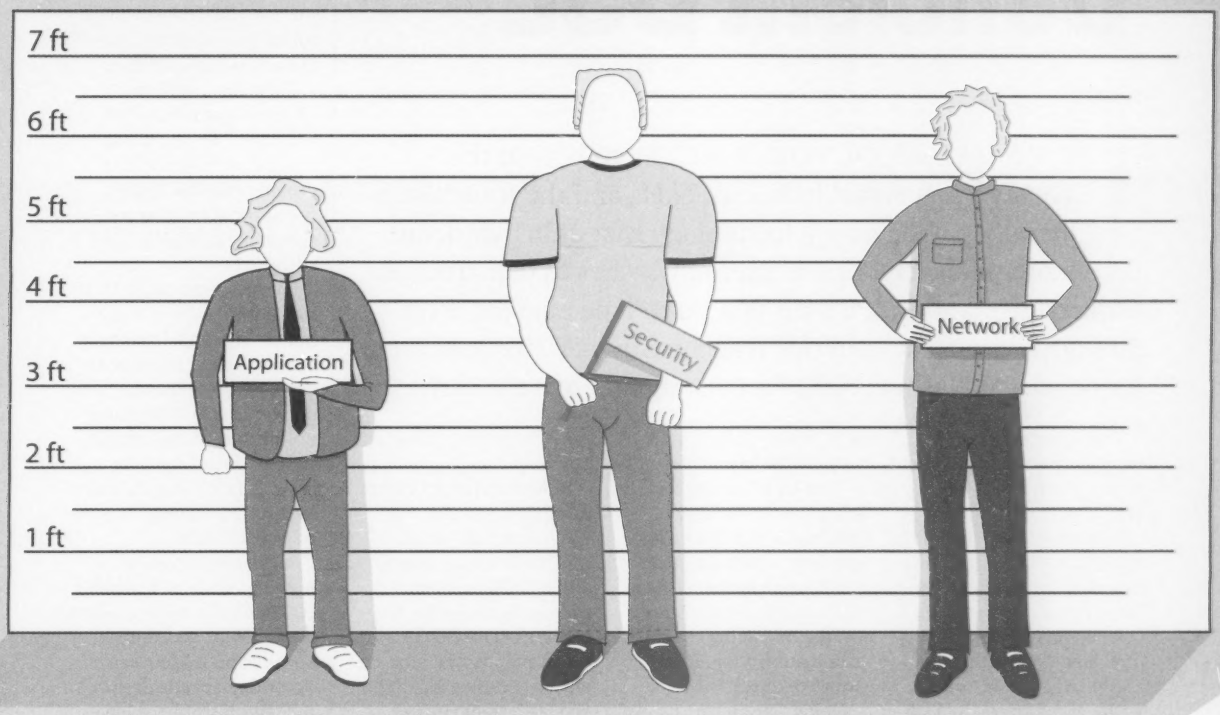

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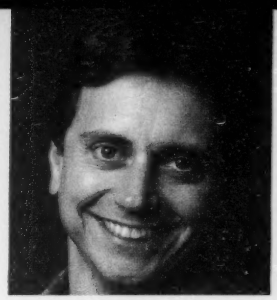
■ OPINION

Robert L. Mitchell



Deficient DSL

IT'S A BALMY OCTOBER AFTERNOON at the Wendy's restaurant in Keene, N.H., and the franchise is literally paving over a technology that didn't work out. Store manager Chris Bergeron watches as construction workers dismantle what's left of a three-lane express drive-through ordering system that franchise owner 256 Operating Associates of Nashua, N.H., had installed 12 months earlier.

The system, which routed orders to call center employees by way of voice over IP, was supposed to increase revenue by speeding up the drive-through line. Crummy Internet connectivity ruined everything.

It seemed to work at first. The system, from Exit41 Inc., was installed with great fanfare. In a jab at the McDonald's next door, the Wendy's marquee proclaimed: "Don't clown around. We're three times faster!" Kevin Fritton, a former executive vice president at the franchise who championed the system, said it initially hurt McDonald's sales as Wendy's traffic and receipts increased. Then things began to go downhill.

Bergeron sums up the problem in one word: miscommunication. The call center just couldn't get the orders consistently right, sometimes messing up 10 or 12 orders during the lunchtime rush. At other times, customers wouldn't be greeted at all. "In fast food, you can't have that happen," he says.

That's a killer, agrees Brian Fields, director of operations at Miami Management, which also uses Exit41's technology. "If you cash out the wrong order, it's like throwing a bucket of bolts into a fan. It just stops you dead," he says.

Fields' Lexington, Ky.-based company owns a chain of 16 Wendy's stores in Kentucky and manages a call center that successfully supports them and the two 256 Operating Associates stores that continue to use the system. Six other Miami Management stores have abandoned it, he says.

■ If the Internet has spurred innovation by reducing barriers to entry, the failure of carriers to provide reliable, high-speed broadband at consistent service levels has stifled it.

In Keene, the problem came down to a lack of consistent bandwidth. "It was really going up and down," which degraded call quality, says Joe Gagnon, Exit41's CEO. He recommends that customers use T1 lines, but 25% choose less-expensive DSL service to make those VoIP connections.

Miami Management was lucky. With three exceptions, the DSL service levels in Kentucky were good enough. In New Hampshire, it has been a disaster. The alternative, a 1.54Mbit/sec. T1 line, delivers a consistent level of service but costs at least five times more.

Higher telecommunications costs mean that businesses need higher traffic volumes to cost-justify Exit41's drive-through technology. While 256 Operating Associates still uses Exit41's point-of-sale technology, only its two highest-volume stores still use the drive-through automation system. One of those is using a T1 line.

If the Internet has spurred innovation by reducing barriers to entry, the failure of carriers to provide reliable, high-speed broadband at consistent service levels has stifled it.

Twenty years after DSL's invention, we're still relying on the same basic technology — and in many areas, providers haven't even delivered that. Maximum uplink speeds are limited in some locations to as little as 128Kbit/sec., with best-case downlink speeds of 768Kbit/sec.

Next-generation technologies such as Verizon's FiOS promise metropolitan areas 2Mbit/sec. uplink speeds and 15Mbit/sec. downlink speeds eventually. But Europeans have 20M-30Mbit/sec., and some areas of Korea and Japan have 100Mbit/sec. — enough to support full-motion video. Meanwhile, Gagnon, struggling with basic VoIP, is forced to tell customers to forget DSL and go back to leasing 1960s technology: a T1 line.

Bandwidth is the currency of the global Internet economy. If carriers continue to fumble broadband access, bandwidth and service-level quality in the U.S., innovation will go elsewhere. ■

Robert L. Mitchell *is a* Computerworld *national correspondent. Contact him at robert_mitchell@computerworld.com.*

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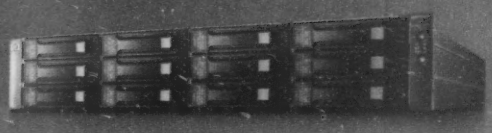

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Career Watch

Salaries Around the World

Annual compensation for the IT manager title (currencies converted to U.S. dollars):

TOP-PAYING COUNTRIES			LOWEST-PAYING COUNTRIES		
1	Switzerland	$140,960	1	Vietnam	$15,470
2	Denmark	$123,080	2	Bulgaria	$22,240
3	Belgium	$121,170	3	Philippines	$22,280
4	U.K.	$118,190	4	India	$25,000
5	Ireland	$108,230	5	Indonesia	$31,720
6	U.S.	$107,500			
7	Germany	$106,730			
8	Canada	$93,340			
9	Hong Kong	$90,340			
10	Australia	$88,850			

NOTES: Average total cash compensation includes base pay and annual bonuses. Foreign exchange conversions were made as of November 2006.

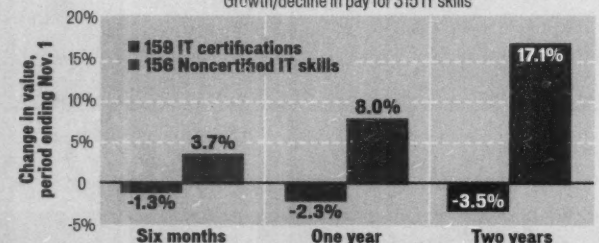
SOURCE: 2007 IT PAY AROUND THE WORLD, MERCER LLC

Certs Take a Dive

>>> Foote Partners LLC has been tracking a convergence in pay for certified and noncertified skills for several quarters. And its most recent survey found that the two had at last met, with noncertified skills in fact now commanding a bit more in compensation. Premium pay for noncertified IT skills was just over 8% in the third quarter, while it was a bit less than 7.9% for certified IT skills. After the dot-com bust, noncertified skills started to be eclipsed by certified skills, which were in demand as businesses dealt with an economic recession and the Sarbanes-Oxley Act, according to Foote Partners. Once businesses got past their Sarbanes-Oxley projects a couple of years ago and economic conditions improved, noncertified IT skills started to make a comeback.

SKILLS PAY MOVING TO NONCERTIFIED SKILLS

Growth/decline in pay for 315 IT skills



SOURCE: FOOTE PARTNERS LLC, VERO BEACH, FLA., QUARTERLY IT SKILLS AND CERTIFICATIONS PAY INDEX, WHICH MONITORS THE PAY OF 74,000 IT PROFESSIONALS IN THE U.S. AND CANADA

Office Politics: IGNORE AT YOUR OWN RISK

BY BILL HAGERUP

Many IT professionals view office politics as something nasty. But where there's technology, there's change, and where there's change, there will be people who perceive themselves as winners or losers. That's where politics begin.

As a project manager, I've encountered many politically charged situations: resistance from people suspicious about change, power struggles between departments, and a lack of support from people I didn't even know were key to the project. Standing by helplessly was frustrating for me and damaging to my career. That's why I developed a five-step road map that has helped hundreds of IT professionals.

1. KNOW THE PLAYERS. The first step is getting outside the world of IT and taking an assessment of the people the project will affect. Who are the key stakeholders, and what are their relationships and histories with one another? To answer those questions, you'll have to become adept at distinguishing the truth hidden in rumor and innuendo.

2. IDENTIFY THE POWER BASES. Determine what clout project stakeholders hold in the organization – not just their positional authority (where they stand on the corporate ladder), but also their influence (the power they wield that's not defined by the organizational chart).

3. SORT YOUR ENEMIES FROM YOUR ALLIES. A stakeholder analysis will tell you who stands to win or lose from the project – or who perceives himself as a winner or a loser. From this, you can predict who your allies and enemies will be, as well as who will ally with or oppose one another.

4. CHART YOUR COURSE. Identifying potential enemies should help you predict political pitfalls – the kinds of actions people might take that would be harmful to the project. Knowing what you could expect means you can start to plan ways to head off unfortunate events.

5. BE FLEXIBLE. You have to pay as much attention to your political course as you do to the traditional project plan. If your planned tactics don't work, you need to take corrective action.

Hagerup *is a senior consultant at Ouellette & Associates Consulting Inc. in Bedford, N.H., and a co-author of* The IT Professional of the Future, *due out in early 2008.*

39% Percentage of **executives and managers who expect funding for employee training to increase over the next year.** Fifty-three percent said it will stay the same.

SOURCE: NFI RESEARCH SURVEY OF 2,000 SENIOR EXECUTIVES AND MANAGERS WORLDWIDE, NOVEMBER 2007

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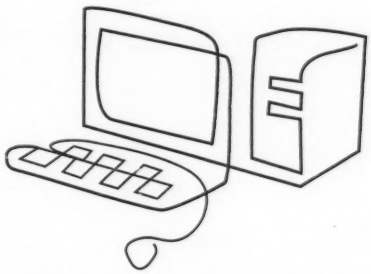

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Does It Wink?

It's time to roll out a new antivirus tool to all PCs in this company, but first this pilot fish sends an e-mail telling everyone that the software will put a new icon on their desktops: a circle with what looks like an eye in the middle. Then fish pushes out the tool – and promptly gets a call. "It was a manager in one of our remote offices," says fish. "She said a new icon was on her computer and she wanted to make sure it wasn't a virus. I asked if she had read the e-mail I sent. She said no. So I told her, 'That's a new camera I'm installing on all computers. In fact, I can see you right now.' After a short moment of silence, I heard 'Hiiiiiiiii!' I could just picture her leaning forward, looking at the monitor and waving to me. Then I told her the truth."

The Real Thing

Field tech pilot fish is on the team deploying new systems to a group of hospitals and clinics where most users are older and not very computer-literate. "One day, we were sitting in our office between deployments, going through the help desk tickets forwarded to us," says fish. "As we joked about users saying 'keyboard needs to be remapped' and a user who couldn't get a CD out of his 'hard drive,' we came upon one that stated a user's PC started smoking and caught fire. Not entirely believing, we went down to check it out – and actually found a scorched PC case and motherboard in a room that smelled strongly of smoke and burnt plastic. From that point on, we took the users' input slightly more seriously."

Try, Try Again

Junior programmer pilot fish is supporting a huge hotel-reservation system. "The principal user was a pedantic person whose suggestions created several levels of dialog boxes, confirmation screens and warnings before routine functions would be processed," says fish. "After months of this, she was promoted. Her replacement was an experienced reservations clerk who was brought up on old-style terminal-based systems." And at the first meeting with developers, the user pronounces the system completely unusable with the endless dialog boxes and messages: "This system is way too user-friendly to be useful. Please change it to something more reasonable."

Born Identity

E-mail from user: "I forgot my answer to the keyword for the password reset. Can you reset my password for the benefits enrollment?" Support pilot fish: "Your keyword is your city of birth. Try it again." User: "I know this sounds dumb, but I forgot what city I used."

■ *Sharky doesn't care where you're from — just that you send me your true tale of IT life at sharky@computerworld.com. You'll score a snazzy Shark shirt if I use it.*

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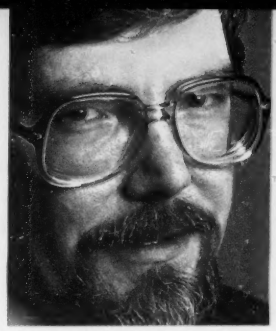
■ FRANKLY SPEAKING

Frank Hayes

Attention, Shoppers



NOW IT'S CRUNCH TIME. This is the most punishingly high-pressure part of the year, with immovable December deadlines marching ever closer. Nerves will be frayed, stupidity will flare up, and you need to give your people all the help and support you can.

No, not IT people. With the holidays coming, the ones who are likely to go over the edge are the users.

Users who will be doing online shopping — some of it from home, but plenty of it from their desks at work.

Users who are more rushed and distracted, so they're more likely to make dumb mistakes — including the kind that open big security holes.

Users who are more worried about holiday parties and gifts than about the projects that require their input, participation or sign-off.

Users who will soon be bringing in gadgets they buy or receive over the holidays (Christmas may be a month off, but Hanukkah is just days away).

In short, users who are about to present IT with major potential problems.

Or, just maybe, a great opportunity.

Look, this happens every December: You struggle against users' inexorable holiday impulses — and lose. This year, why not go with it?

You need to remind them of appropriate-use policies. And holiday changes in help desk staffing. And the fact that IT projects still need to get done.

Why not make the centerpiece of that annual memo a list of tips for safe online shopping?

Maybe your users are allowed to e-shop from work. If not, they'll be doing it from home on PCs they also use to work remotely. It's in your interest to keep them safe. Besides, it makes you look like you really care about users.

How? Start with a brief "With the holidays coming . . . " recap of your appropriate-use policy. Then run through some safe-shopping tips. Here are a dozen to get you started:

■ Shop with online merchants you know and trust.

■ Order from secure Web sites, which can be identified by a locked padlock or unbroken key icon in your Web browser (unsecured sites may show an unlocked padlock or a broken key).

■ Keep printouts of everything, including copies of your order; Web pages describing what you ordered; Web pages that tell the seller's name, address and telephone number; and any e-mail confirmations you get. And make sure you add the date if it doesn't automatically appear on the printouts.

■ Use credit cards for online purchases, which will limit your loss to $50 if your credit is used without authorization. But it has to be a real credit card, not a debit or check card. You may want to use just one credit card for all online payments, to make it easier to detect wrongful charges.

■ Don't give out your Social Security number.

■ Don't give out unnecessary information.

■ Don't send your credit card number by e-mail.

■ Don't give out your passwords for e-commerce Web sites to anyone.

■ Don't give out your bank information; no one needs it for an online order.

■ Double-check every Web site address.

■ Don't click on links within e-mails. Type in the Web site's address yourself — very carefully.

■ Remember, if the deal seems too good to be true, it probably is.

You can also direct users to online sources of additional information, including the Better Business Bureau Web site (*www.bbbonline.org/OnlineShopTips*), the Privacy Rights Clearinghouse (*www.privacyrights.org/fs/fs23-shopping.htm*) and the Federal Trade Commission Web site (*www.ftc.gov/onlineshopping*).

Then finish by reminding them of reduced help desk hours, ongoing projects and policies about personal gadgets. They'll be more likely than usual to read your memo all the way to the end.

And who knows? By offering helpful advice and gentle reminders, you might just make these holidays happier — and safer — for everyone. ■

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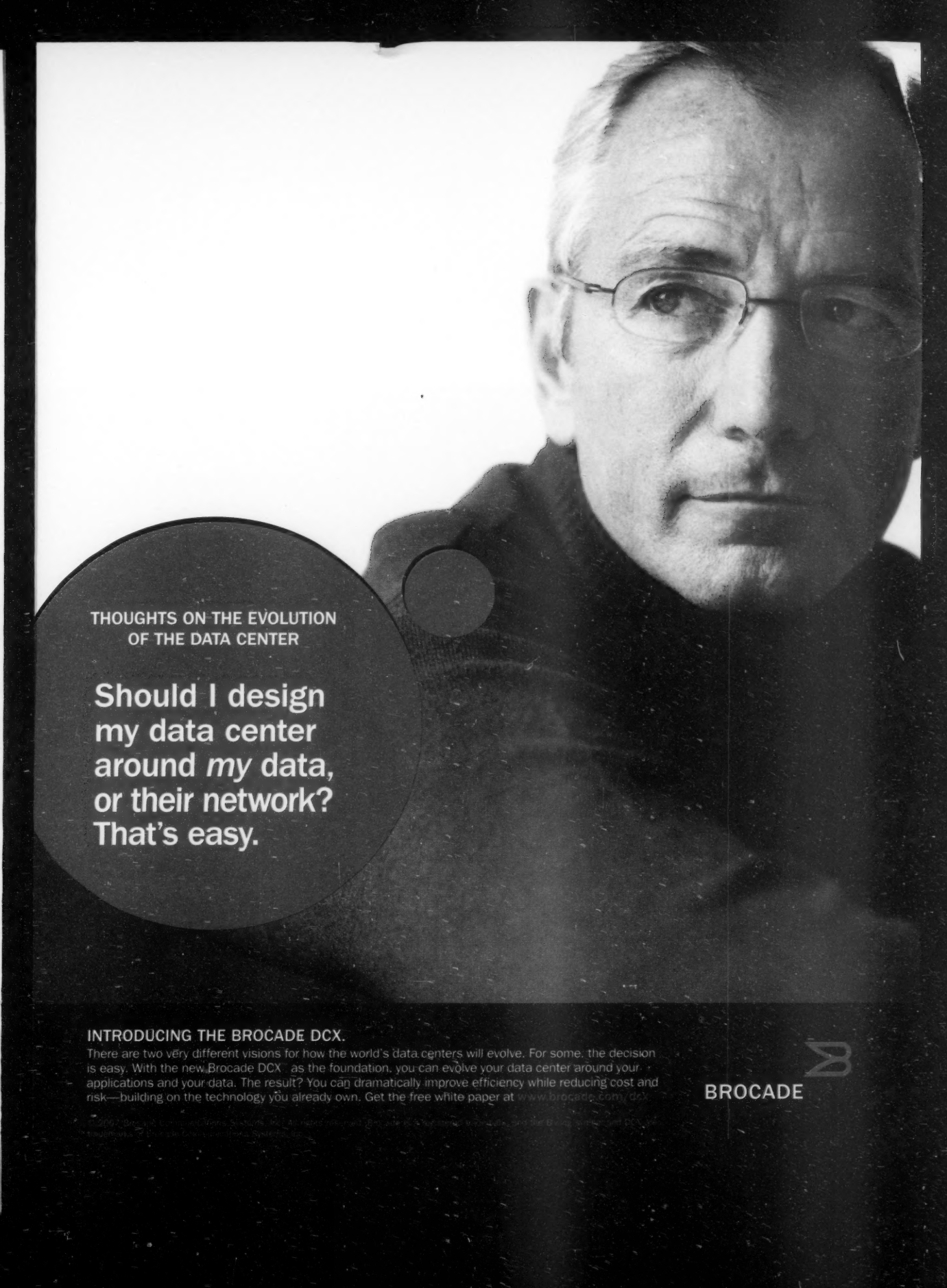
■ Why not make the centerpiece of that holiday annual memo a list of tips for safe online shopping?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1. *"The Forrester Wave™: Application Server Platforms, Q3 2007,"* Forrester Research Inc., July 11, 2007.
2. *SOA World Magazine 2007 Reader's Choice Awards*, July 3, 2007.

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